This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

BOSTON
MEDICAL LIBRARY
8 THE FENWAY

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

TRANSACTIONS

OF THE

MEDICAL ASSOCIATION

OF THE

STATE OF MISSOURI,

BOSTON MEDICAL LIBRARY ASSOCIATION

AT THE

TWENTY-SEVENTH ANNUAL SESSION

HELD AT

ST. JOSEPH, MO., MAY 12, 13 AND 14,

1885.

J. H. CHAMBERS & CO.,
PUBLISHERS, AND DEALERS IN MEDICAL BOOKS,
ST. LOUIS, MO.

Digitized by Google

CATALOGUED,
E. H. B.
7/15/86.

Digitized by Google

OFFICERS ELECTED FOR 1885-86.

PRESIDENT,

Dr. G. C. Catlett, St. Joseph.

VICE-PRESIDENTS,

Dr. C. A. Todd, St. Louis.
Dr. J. W. Brent, Tipton.
Dr. J. W. Jackson, Kansas City.
Dr. D. H. Shields, Hannibal.
Dr. G. M. Dewey, Keytesville.

TREASURER,

Dr. C. A. Thompson, Jefferson City.

RECORDING SECRETARIES,

Dr. J. H. Thompson, Kansas City.
Dr. J. C. Mulhall, St. Louis.

CORRESPONDING SECRETARY,

Dr. R. F. Brooks, Carthage.

Digitized by Google

STANDING COMMITTEES.

COMMITTEE OF ARRANGEMENTS.

C. H. Hughes, E. M. Nelson, W. E. Fischell,
A. J. Steele, J. C. Mulhall,

COMMITTEE ON CREDENTIALS.

W. E. Evans, H. Hodgen, D. H. Shields.

COMMITTEE ON SCIENTIFIC COMMUNICATIONS.

H. H. Middelkamp, N. M. Basket, Lewis Carthrae.

COMMITTEE ON PROGRESS OF MEDICINE.

E. W. Schauffler, C. Lester Hall, Tinsley Brown.

SUB-COMMITTEE ON PSYCHOLOGICAL MEDICINE.

C. H. Hughes, C. H. Wallace, J. M. Allen.

SUB-COMMITTEE ON DISEASES OF THE RESPIRATORY ORGANS AND HEART.

T. H. Doyle, O. A. Williams, G. M. Dewey

Digitized by Google

SUB-COMMITTEE ON NASO-PHARYNGEAL DISEASES.

J. C. Mulhall, J. H. Evans, W. T. Lindley.

SUB-COMMITTEE ON INSTRUMENTAL MIDWIFERY.

J. M. Richmond, W. E. Evans, H. H. D. Moorman.

SUB-COMMITTEE ON ORTHOPÆDIC SURGERY.

H. H. Mudd, D. V. Wale, W. F. Mitchell.

SUB-COMMITTEE ON RAILROAD SURGERY.

J. W. Jackson, J. W. Smith, A. E. Gore.

SUB-COMMITTEE ON ABDOMINAL SURGERY.

J. W. Trader, J. R. Clark, R. H. Smith.

SUB-COMMITTEE ON DISEASES OF THE GENITO-URINARY ORGANS.

N. F. Essig, J. H. Cox, R. M. Funkhouser.

SUB-COMMITTEE ON OPHTHALMOLOGY.

J. H. Thompson, L. J. Matthews, J. W. Hawkins.

SUB-COMMITTEE ON OTOLOGY.

C. A. Todd, E. McD. Coffey.

Digitized by Google

COMMITTEE ON MEDICAL EDUCATION.

. P. Thatcher, Wm. Harrison, R. S. Holman,
J. O. K. Gant, C. R. Woodson.

COMMITTEE ON DISEASES OF CHILDREN.

J. F. Hanna, T. C. Boulware, C. W. Adams.

SUB-COMMITTEE ON DERMATOLOGY.

J. H. Duncan, F. W. Allen, N. S. Wright.
Wm. Hughes.

COMMITTEE ON PROGRESS OF SURGERY.

T. F. Prewitt, H. H. Middelkamp, R. E. Young,
E. R. Lewis, R. F. Brooks, F. J. Lutz.

SUB-COMMITTEE ON GYNECOLOGY.

J. W. Brent, B. F. Records, Robert Harris.

COMMITTEE ON COLLECTIVE INVESTIGATION OF DISEASE.

J. E. Tefft, J. P. Kingsley, A. H. Ohmann-Dumesnil,
W. H. Bryant.

SUB-COMMITTEE ON ANATOMY.

George Halley, O. D. Fitzgerald.

Digitized by Google

SUB-COMMITTEE ON PHYSIOLOGY.

A. P. Busey, J. T. Bailey.

SUB-COMMITTEE ON FORENSIC MEDICINE.

Hiram Christopher, W. R. Simpson.

COMMITTEE ON MEDICAL ETHICS.

G. Hurt, J. R. Hall, A. B. Miller.

COMMITTEE ON STATE MEDICINE.

D. H. Shields, C. A. Thompson, J. R. Mudd.

COMMITTEE ON PUBLICATION.

E. W. Schauffler, C. W. Adams, C. H. Lester.
F. M. Johnson, M. A. Bogie,
J. H. Thompson.

Digitized by Google

MEMBERS FOR 1885.

NAME.	RESIDENCE.	DELEGATE FROM.
ADAMS, W. C.	Kansas City.	Jackson Co. Med. Soc'y.
ALLEN, F. W.	Barryville.	Macon Co. Med. Soc'y.
ALLEN, J. M.	Liberty.	Ex-President.
BAILY, J. T.	Fayette.	Moberly Dist. Med. Soc'y.
BASKET, N. M.	Moberly.	Moberly Dist. Med. Soc'y.
BEVER, W. J.	Lathrop.	Lathrop Med. Soc'y.
BERGHOFF, J. T.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
BOGIE, M. A.	Kansas City.	Kansas City Med. Soc'y.
BOULWARE T. C.	Butler.	Bates Co. Med. Soc'y.
BRENT, J. W.	Tipton.	John McDowell Med. Soc'y.
BROOKS, R. F.	Carthage.	Jasper Co. Med. Soc'y.
BROKAW, NORTON	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
BROWN, TINSLEY	Hamilton.	Grand River Med. Soc'y.
BRYANT. W. H.	Savannah.	N. W. Mo. Med. Soc'y.
BUCHANAN, G. W.	Richmond.	Ray Co. Med. Soc'y.
BURRILL, C. W.	Kansas City.	Jackson Co. Med. Soc'y.
BUSEY, A. P.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
CARTHRAE, LEWIS	Corder.	Lafayette Co. Med. Soc'y.
CATLETT, G. C.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
CHESNEY, J. P.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
CHRISTOPHER, HIRAM	St. Joseph.	N. W. Mo. Dist. Med. Socy.
CLARK, J. R.	Farmersville,	Grand River Med. Soc'y.
CLAYTON, C. F.	Rolls Co.	
COFFEY, E. M.	Platte City.	Platte Co. Med. Soc'y.
COX, J. H.	Pilot Grove.	Cooper Co. Med. Soc'y.
DAVIS, G. W.	Kansas City.	Jackson Co. Med. Soc'y.
DAVIS, W. B.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
DEWEY, G. M.	Keytesville.	Moberly Dist. Med. Soc'y.
DONELAN, E. A.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
DOYLE, T. H.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
DRAKE, N. A.	Kansas City.	Jackson Co. Med. Soc'y.
DUNCAN, J. H.	Kansas City.	Jackson Co. Med. Soc'y.

Digitized by Google

NAME.	RESIDENCE.	DELEGATE FROM.
Essig, N. F.	Plattsburg.	N. W. Mo. Dist. Med. Soc'y.
Estell, W. G.	Vibbard.	Ray Co. Med. Soc'y.
Evans, J. H.	Sedalia.	Pettis Co. Med. Soc'y.
Evans, W. E.	Boonville.	Cooper Co. Med. Soc.
Fischell, W. E.	St. Louis.	St. Louis Med. Soc'y.
Fitzgerald, O. D.	Lathrop.	Lathrop Med. Soc'y.
French, J. A.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
Fryer, B. E.	Kansas City.	Jackson Co. Med. Soc'y.
Fulkerson, P. S.	Lexington.	
Funkhouser, P. M.	St. Louis.	St. Louis Med. Soc'y.
Gant, J. O. K.	Plattsburg.	K. C. Dist. Med. Soc'y.
Geiger, Jacob	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
Gillett, J S.	Rich Hill.	Bates Co. Med. Soc'y.
Goben, G. A.	Kirksville.	Grand River Med. Soc'y.
Gore, A. E.	Paris.	
Gregory, E. H.	St. Louis.	Ex-President.
Griffith, J. D.	Kansas City.	Kansas City Med. Soc'y.
Haire, Rob't	Schell City.	
Hall, C. Lester	Marshall.	Saline Co. Med. Soc'y.
Hall, J. R.	Marshall.	Saline Co. Med. Soc'y.
Halley, Geo.	Kansas City.	Kansas City Med. Soc'y.
Hamilton, C. L.	Converse.	Ray Co. Med. Soc'y.
Hamilton, J. T.	Crab Orchard.	Ray County Med. Soc'y.
Hanna, J. F.	Columbia.	Boone Co. Med. Soc'y.
Harrison, Wm.	Marshall.	Saline Co. Med. Soc'y.
Hart, B. F.	Brownsville.	Saline Co. Med. Soc'y.
Hawkins, J. W.	Glasgow.	Chariton Co. Med. Soc'y.
Heddens, W. I.	St. Joseph.	St. Joseph Med. Soc'y.
Herndon, J. A.	Camden Point.	Platte Co. Med. Soc'y.
Highsmith, G. R.	DeWitt.	Carroll Co. Med. Soc'y.
Hodgen, H.	St. Louis.	St. Louis Med. Soc'y.
Holcomb, G. W.	Calhoun.	Cooper Co. Med. Soc'y.
Holman, R. S.	Boonville.	Cooper Co. Med. Soc'y.
Hoyt, F. C.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
Hughes, C. H.	St. Louis.	Medico-Chirurg. Soc'y.
Hughes, Wm.	Hopkins.	N. W. Mo. Dist. Med. Soc'y.
Hurt, G.	St. Louis.	St. Louis Med. Soc'y.
Hurley, J. M.	Carthage.	S. W. Mo. Dist. Med. Soc'y.

Digitized by Google

NAME.	RESIDENCE.	DELEGATE FROM.
JACKSON, J. W.	Kansas City.	Jackson Co. Med. Soc'y.
JOHNSON, F. M.	Kansas City.	Kansas City Med. Soc'y
KEMPER, C. C.	Platte City.	Platte Co. Med. Soc'y.
KING, W. P.	Sedalia.	Ex-President.
KINGSLEY, J. P.	St. Louis.	Medico Chirurg. Soc'y.
KNIGHT, C. F.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
LANE, H. M.	Smithfield.	Jasper Co. Med. Soc'y.
LESTER, T. B.	Kansas City.	Ex-President.
LESTER, C. H.	Kansas City.	Kansas City Med. Soc'y.
LEWIS, E. R.	Kansas City.	Jackson Co. Med. Soc'y.
LINDLEY, W. T.	Hamilton.	Grand River Med. Soc'y.
LUTZ, F. J.	St. Louis.	St. Louis Med. Soc'y.
MARSH, J. T.	Liberty.	Clay Co. Med. Soc'y.
MARTIN, J. W.	Weston.	Platte Co. Med. Soc'y.
MATTHEWS, L. J.	Carthage.	Jasper Co. Med. Soc'y.
MIDDELKAMP, H. H.	Warrenton.	Ex-President.
MIDDLETON, W. H.	Kansas City.	Jackson Co. Med. Soc'y.
MILHAM, B. J.	Macon City.	Macon City Med. Soc'y.
MILLER, A. B.	Macon City.	Macon City Med. Soc'y.
MITCHELL, W. F.	Lancaster.	S. W. Mo. Dist. Med. Soc'y.
MIZENER, J. L.	Smithville.	Clay Co. Med. Soc'y.
MOORMANN, H. H. D.	Keytesville.	Moberly Dist. Med. Soc'y.
MUDD, H. H.	St. Louis.	St. Louis Med. Soc'y.
MUDD, J. R.	St. Charles.	Linton Co. Med. Soc'y.
MULHALL, J. C.	St. Louis.	St. Louis Med. Soc'y.
MUNSELL, L. S.	Tarkio.	N. W. Mo. Dist. Med. Soc'y.
NASH, GEO.	Merryville.	N. W. Mo. Dist. Med. Soc'y.
NELSON, E. M.	St. Louis.	St. Louis Med. Soc'y.
OHMANN-DUMESNIL, A. H.	St. Louis.	St. Louis Med. Soc'y.
POWERS, JNO.	Urich.	Henry Co. Med. Soc'y.
PREWITT, T. F.	St. Louis.	Medico-Chirurg. Soc'y.
PRIEST, E. L.	Thornleigh.	Cooper Co. Med. Soc'y.
RECORDS, B. F.	Platte City.	Platte Co. Med. Soc'y.
REDMAN, H. S.	Tipton.	John McDowell Med. Soc'y.

Digitized by Google

NAME.	RESIDENCE.	DELEGATE FROM.
REDMAN, SPENCE.	Platte City.	Platte Co. Med. Soc'y.
RICE, J. J.	Paradise.	Clay Co. Med. Soc'y.
RICHMOND, J. M.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
ROBERSON, J. M.	Latham's Store.	John McDowell Med. Soc.y.
ROSS, G. M.	Pilot Grove.	Cooper Co. Med. Soc'y.
RUMBOLD, T. F.	St. Louis.	St. Louis Med. Soc'y.
SARGENT, D. A.	Hopkins.	N. W. Mo. Dist. Med. Soc'y.
SCHAUFFLER, E. W.	Kansas City.	Ex-President.
SHIELDS, D. H.	Hannibal.	Hannibal Med. Soc'y.
SIEMENS C. J.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
SIMMONS, F. A.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
SIMPSON, W. R.	Chillicothe.	Grand River Med. Soc'y.
SLOAN, A. B.	Kansas City.	Kansas City Med. Soc'y.
SMITH, J. C.	Agency.	N. W. Mo. Dist. Soc'y.
SMITH, J. D.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
SMITH, J. W.	Richmond.	Ray Co. Med· Soc'y.
SMITH, R. H.	Craig.	N. W. Mo. Dist. Med. Soc'y
STAPP, J. H.	Morton.	Ray Co. Med. Soc'y.
STEELE, A. J.	St. Louis.	St. Louis Med. Chir. Soc'y.
STRINGFELLOW, J. H.	St. Joseph.	N. W. Mo. Dist. Med. Soc'y.
SUTHERLAND, J. C.	Fillmore.	N. W. Mo. Dist. Med. Soc'y
TEFFT, J. E.	Springfield.	Ex-President.
THATCHER, J. P.	Pisgah.	Cooper Co. Med. Soc'y.
THOMPSON, C. A.,	Jefferson City.	Treas. State Med. Ass'n.
THOMPSON, J. H.	Kansas City.	Sec'y State Med. Ass'n.
THORNTON, W. F.	St. Louis.	St. Louis Med. Soc'y.
TODD, C. A.	St. Louis.	St. Louis Med. Soc'y.
TODD, S. S.	Kansas City.	Ex-President.
TIFFANY, F. B.	Kansas City.	Jackson Co. Med. Soc'y.
TRACY, J. M.	Mound City.	N. W. Mo. Dist. Med. Soc'y.
TRADER, J. W.	Sedalia.	Ex-President.
TRUEWORTHY, J. W.	Kansas City.	Jackson Co. Med. Soc'y.
VANCE, J. W.	St. Joseph.	St. Joseph Med. Soc'y.
VAN EMAN, J. H.	Kansas City.	Kansas City Med. Soc'y.

Digitized by Google

NAME.	RESIDENCE.	DELEGATE FROM.
WALE, D. V.	Jasper.	Jasper Co. Med. Soc'y.
WALKER, W. V.	Mexico.	Lenton Co. Med. Soc'y.
WALLACE, C. H.	St. Joseph.	St. Joseph Med. Soc'y.
WILLIAMS, O. A.	Aikensville.	John McDowell Med. Soc'y.
WILSON, B. F.	Salisbury.	Moberly Dist. Med. Soc'y.
WOODSON, C. R.	Agency.	N. W. Mo. Dist. Med. Soc'y.
WRIGHT, U. S.	Fayette.	Moberly Dist. Med. Soc'y.
YATES, W. J.	Kearney.	Clay Co. Med. Soc'y.
YATES, W. B.	Kaseyville.	Macon Co. Med. Soc'y.
YOUNG, R. E.	Jefferson City.	Central Mo. Dist. Med. Soc'y.

Digitized by Google

BOSTON MEDICAL LIBRARY ASSOCIATION.

CONSTITUTION AND BY-LAWS.

ARTICLE I.—TITLE.

This Association shall be called "THE MEDICAL ASSOCIATION OF MISSOURI."

ARTICLE II.—OBJECTS.

The objects of the Association are to constitute a representative body of the regular medical profession of the State of Missouri, which may advance the interest and encourage the unity and harmonious action of the entire profession throughout this state; to suppress empiricism as much as practicable; to restrict the privilege of practicing the profession of medicine to qualified graduates; to develop talent, stimulate medical inventions and discoveries, and to maintain our rights and immunities as medical men.

ARTICLE III—MEMBERS.

The members of this Association shall consist of four classes, to-wit: 1st, Associate Members; 2nd, Delegates; 3d, Honorary Members; 4th, Members by Invitation.

ARTICLE IV.—OFFICERS.

The officers of this Association shall be a President, five Vice-Presidents, two Recording Secretaries, a Corresponding Secretary and a Treasurer.

ARTICLE V.—STANDING COMMITTEES.

The following standing committees, composed of three mem-

Digitized by Google

bers, of whom the first named is chairman, shall be nominated at each annual meeting, to-wit:

1. A Committee of Arrangements.
2. A Committee on Credentials.
3. A Committee on Scientific Communications.
4. A Committee on the Progress of Medicine.
5. A Committee on the Progress of Surgery.
6. A Committee on Medical Education.
7. A Committee on Medical Ethics.
8. A Committee on Publication.

ARTICLE VI.—AMENDMENTS.

No alteration or amendment shall be made in any of the articles of this Constitution, except at the annual meeting next subsequent to that at which such alteration or amendment may have been proposed, and then only by the concurrence of three-fourths of the members in attendance.

BY-LAWS.

ARTICLE I.—MEMBERS.

SECTION 1.—*Associate Members* shall be graduates of any medical college, who shall conform to the requirements of the American Medical Association, sign the constitution and pay the fee.

SEC. 2.—*Delegates* from local societies in Missouri.

SEC. 3.—*Honorary Members* may be elected at any annual meeting by a unanimous vote of the Association, not to exceed six annually. Every member who may have been, or may hereafter be, elected the President of this Association, will, by virtue of that fact, become an honorary member. With this exception, only non-residents of the state, of pre-eminent reputation shall be eligible for honorary membership.

SEC. 4.—*Members by Invitation* shall consist of reputable practi

Digitized by Google

tioners who may be deemed worthy of the compliment, and elected by a vote of the Association.

SEC. 5.—Any physician, after having been admitted as a member of this Association, shall retain his membership by the payment of an annual fee of three dollars at each annual meeting as long as he is in good standing in his profession.

SEC. 6.—All classes of members shall be entitled to equal privileges in the discussions of the Association.

SEC. 7.—Honorary members who are non-residents of the state, and members by invitation, shall not be eligible to office, nor allowed to vote, nor be expected to contribute to the funds of the Association.

SEC. 8.—If a member of this Association die, it shall be the duty of the presiding officer of the nearest medical society in the district in which he resided, to write or have written a suitable biographical sketch of said deceased member, and to transmit the same, before the next annual meeting, to the Committee on Publication.

SEC. 9.—The Recording Secretary shall keep a list of the living members of this Association, so that at each annual meeting, if, when the roll is called, it be ascertained that any member has died during the year, the President may appoint some suitable person to prepare a biographical sketch of said deceased member.

ARTICLE II.—ELECTIONS.

SECTION 1.—The election of officers of the Association shall occur annually, and shall be by ballot, a majority electing.

SEC. 2.—All officers shall be elected on the last day of the session, at such hour as the Association shall direct, and they shall be inducted into office immediately before the final adjournment.

SEC. 3.—The election of President shall be made in open session, by ballot or otherwise, as the Association shall at the time direct.

SEC. 4.—All the other officers shall be elected after nominations have been presented by the Committee on Nominations.

ARTICLE III.—DUTIES OF OFFICERS.

SECTION 1.—The *President* shall preside at the meetings, preserve order, and perform all other duties that custom and parlia-

Digitized by Google

mentary usage may require, countersign orders on the Treasurer, and deliver an annual address to the Association before retiring from office.

SEC. 2.—The *Vice-Presidents*, when called upon, shall assist the President in performance of his duties, and during the absence, or at the request of the President, one of them shall officiate in his place.

SEC. 3.—The *Recording Secretaries* shall keep a full and accurate record of the proceedings, shall serve as members on the Committee on Publication, and preserve the archives and unpublished transactions of the Association.

SEC. 4.—The *Corresponding Secretary* shall conduct all business communications of the Association, and report the same at each annual meeting and then deliver the same to the Recording Secretary, and shall perform such other duties pertaining to his office as the President of the Association may direct.

SEC. 5.—The *Treasurer* shall collect and have immediate charge and management of the funds and property of the Association, and hold them subject to its disposal. At each annual meeting he shall present a written report, setting forth the amount of moneys received and disbursed, and for what purposes. At the expiration of, or on vacating his office, he shall deliver to his successor all moneys and all property belonging to the Association for which he is responsible. He shall file a bond with the Recording Secretary, on or before assuming his duties, equal in amount to liabilities of his office, indorsed by two securities approved by the President.

ARTICLE IV.—MEETINGS.

SECTION 1.—The regular meetings of this Association shall be held annually at any place within the State of Missouri that may have been selected by the Association, and shall commence on the third Tuesday in May—changeable, however, at the option of the President and Recording Secretary, when such time conflicts with the meeting of the American Medical Association.

SEC. 2.—The regular meetings of the Association may remain in session three days, if a sufficiency of business seems to demand it.

ARTICLE V.—DUTIES OF STANDING COMMITTEES.

SECTION 1.—The *Committee on Arrangements* shall provide suitable accommodations for the annual meeting, and shall take all

Digitized by Google

measures to secure the attendance of members, by publication or otherwise.

SEC. 2.—The *Committee on Credentials* shall examine and report upon the credentials of members.

SEC. 3.—The *Committee on Scientific Communications* shall have charge of all scientific communications made to the Association. It shall be their duty to receive from members the titles of such papers as may be proposed to the Association, and to take such other measures as may seem to them best adapted to secure interesting and original communications upon scientific subjects connected with medicine. Such communications must be read before the Association, in full or in abstract, before being presented to the Committee on Publication. They shall also arrange the order in which such communications shall be presented to the Association.

SEC. 4.—The *Committee on the Progress of Medicine* (duties not defined).

SEC. 5.—The *Committee on the Progress of Surgery* (duties not defined).

SEC. 6.—The *Commitee on Medical Education* shall prepare an annual report on the general status of medical education in the State of Missouri, with such other matters as they may deem worthy of special consideration in reference to medical education and the reputable standing of the profession.

SEC. 7.—The *Committee on Medical Ethics* shall take cognizance of any matter relating to their department.

SEC. 8.—The *Committee on Publication*, of which the Recording and Corresponding Secretaries and the outgoing Recording Secretaries shall *ex officio* constitute a part, shall examine all papers that may be referred to it by the Association, and shall present a report, during the meeting at which the said papers are read, stating what papers, in the opinion of the committee, should be published in the Association transactions. The committee shall, furthermore, prepare for the press, publish and distribute such of the proceedings and memoirs of the Association as may be ordered to be published.

ARTICLE VI.—DISCIPLINE OF MEMBERS.

SECTION 1.—In case of a violation of the provisions of the constitution, or the code of ethics adopted by the Association, and upon the fact being established to the satisfaction, of two-thirds of

Digitized by Google

the members in attendance at the meeting, the individual or individuals thus offending shall be expelled.

ARTICLE VII.—FUNDS AND APPROPRIATIONS.

SECTION 1.—The funds of the Association shall be raised by an annual assessment of three dollars on each member, and by individual voluntary contributions.

SEC 2.—The funds thus raised may be appropriated for defraying the expenses of the annual meetings; for publishing the proceedings, memoirs and transactions of the Association; for enabling the standing committees to fulfill their respective duties, conduct their correspondence, and procure the material for the completion of their stated annual reports; for the encouragement of scientific investigations by prizes and awards of merit; and for such other purposes as the Association may from time to time direct.

SEC. 3.—All members shall be entitled to a copy of the publications of the Association for one year.

ARTICLE VIII.—CODE OF ETHICS.

SECTION 1.—The Code of Ethics of the American Medical Association is hereby adopted by this Association, and shall have the full force and effect of any article of the constitution.

At the Twenty-Seventh Annual meeting the following amendments, relative to membership, were adopted:

1. Honorary members shall consist of those who have served as President of the Association with such distinguished members of the profession not resident of the state, who shall be elected by a three-fourths vote at a regular meeting of the Association.

2. All members of good standing of regular medical societies of this state, who shall be regularly accredited by the proper officers of said societies.

3. The annual dues to be paid by all members in attendance (other than honorary) shall be three dollars, and each member shall be entitled to a copy of the transactions.

4. Any physician in the state not a member who shall remit one dollar to the treasurer on or before the annual meeting shall be entitled to a copy of the transactions.

Digitized by Google

ARTICLE IX.—ORDER OF BUSINESS.

The following Order of Business is adopted as a By-Law of this Association, which shall at all times be subject to the vote of a majority of the members in attendance at the meeting, and, except when temporarily suspended, shall be as follows:

1. The organization of the meeting.
2. Reading the minutes of the preceding meeting.
3. Report of the Committee on Arrangements.
4. Report of the Committee on Credentials of members who have registered their names and paid their dues.
5. The calling of the roll.
6. The election of officers for the current year.
7. The reception of members not present at the opening of the meeting and the reading of notes from absentees.
8. Reception of members by invitation.
9. Reports of standing committees.
10. The reading and discussion of scientific communications as arranged by committees.
11. The reading of biographical sketches of deceased members.
12. Resolutions introducing new business and instructions to the standing committees.
13. Unfinished and miscellaneous business.
14. Adjournment.

ARTICLE X.—AMENDMENTS.

SECTION 1—No alteration or amendment in the By-Laws shall be made except at a regular meeting, and by a two-thirds vote of the members present.

Digitized by Google

Digitized by Google

MINUTES.

FIRST DAY.

MORNING SESSION.

The Twenty-Eighth Annual Meeting of the Missouri State Medical Association was held at St. Joseph, Mo., May 12, 1885, and was called to order by Vice-President W. E. Evans, H. H. Middelkamp President being absent.

The Rev. Dr. Runcie opened the meeting by prayer. The Mayor of St. Joseph addressed the Association in behalf of the citizens of that City.

Dr. Heddens, Chairman of the Committee of Arrangements, addressed the Association in behalf of the profession of St. Joseph, extending to all the members an invitation to visit the different places of interest in the City and its environments.

The addresses were responded to and the invitation accepted by the Vice-President.

On invitation, Dr. Trader of Sedalia made some remarks, and moved that the Association thank the gentlemen, citizens and members of the Committee of Arrangements for their expressions of welcome. Carried.

Dr. C. A. Thompson made some suggestions concerning the admission of members; stated that there had been some misunderstanding regarding the list of members for the year 1884; thought that the Committee on Credentials should have been more careful, as their report to the Secretary was incomplete.

Dr. Lane of Jasper County was elected Assistant Secretary *pro, tem.*

Dr. Trader moved that a Committee be appointed to report on the death of Dr. P. V. Schenck. Carried.

Dr. Clark complained that his name had been left off the list

Digitized by Google

of members for 1884. Reminded by Dr. C. A. Thompson that he had failed to register after paying his dues and receiving receipt.

On motion of Dr. W. I. Heddens the Association adjourned to 2 P. M.

EVENING SESSION.

Association called to order by the President, Dr. H. H. Middelkamp at 2 P. M.

Minutes of the last meeting read and approved.

Committee on Credentials made a partial report.

Dr. Hurt of St. Louis called attention to the time limited to the reading of reports and papers, and discussions. Reports limited to 30 minutes, original papers, 20 minutes, and discussions 5 minutes.

President announced that the rule would be strictly enforced.

Dr. Sloan moved that the Committee on Scientific Communications read the entire list of papers presented to them. Carried.

Dr. Trader of Sedalia read a paper on Cholera. Discussed by Drs. C. A. Thompson, Stringfellow, Lewis, Hughes, Hanna, Hurt, Fischell, Prewitt, Heddens, Brent, Wilson, and Sloan. Dr. Trader closed the discussion.

The President appointed the following Committee to draft resolutions respecting the death of Dr. P. V. Schenck.

DR. T. F. PREWITT, St. Louis.
DR. L. J. MATTHEWS, Carthage.
DR. C. A. THOMPSON, Jefferson City.
DR. JACOB GEIGER, St. Joseph.
DR. H. H. MUDD, St. Louis.

Dr. Mullhall read a paper on Atrophic Rhinitis. Discussed by Drs. Trader, Catlett, Harrison, Siemens, Rumbold. Dr. Mulhall closed the discussion. Referred.

Dr. Todd of Kansas City asked permission to make some remarks on the treatment of Cholera. Granted.

MR. PRESIDENT: It is probably known to all members of this Society who read the *Journal of the American Medical Association*, edited by Dr. N. S. Davis, and published in Chicago under the auspices of the Association, that in August last (No. 6, Vol. iii.) I proposed in that journal a new treatment of Asiatic Cholera, a brief allusion to which may be of interest to many present. For details of the plan proposed I will refer members to the paper mentioned, to be supplemented by yet another paper in the same journal. The prominent points of this projected

Digitized by Google

treatment are two in number, to wit: First, the introduction into the system subcutaneously of large volumes of distilled water—from two to four quarts in twenty-four hours for an adult, to which have been added salts of sodium and potassium in minute but appreciable quantities, and alcohol if collapse exist or is threatened. Second, the administration of copious draughts of hot water acidulated with the dilute sulphuric acid, repeating them as fast as they may be rejected, to the utter exclusion of ice-water or other cold drinks.

The subcutaneous injections are intended to replace rapidly, continuously and as exactly as may be the fluid substance of the blood now being wasted in the watery evacuations of the stomach and bowels. *If absorption of the fluid thus thrown into the cellular tissue of the thigh, the arm, or the abdominal wall shall take place*, it will be possible in any case to preserve the *fluidity* and in a great measure the *integrity* of the blood, and vigor of the heart's action till the danger be over.*

It is believed that absorption will readily take place in these cases, for I have on more than one occasion seen patients apparently moribund quickly revive under the influence of large quantities of dilute alcohol thus introduced with an instrument of the kind described. If it shall prove that the fluid will be absorbed into the general circulation the advantage of this kind of medication is incalculable in all cases where the stomach has lost power of aborption.

The plan of using hot, acidulated drinks for the relief of thirst, instead of iced drinks, as the patient always craves, and as are ordinarily given, will be readily appreciated. All bad cases are attended with an algid condition, in which the temperature often sinks below 90 degrees. Under such circumstances cold introduced into the stomach must be perilous in the extreme. Sulphuric acid is grateful to the palate, allays thirst, and is potent as a destroyer of germs. Its addition to the water taken into the stomach cannot but be beneficial.

Dr. Hughes of St. Louis read a paper on Some of the Neglected or not Duly Appreciated Psychical Precursors of Brain Disease. Discussed by Drs. Catlett, Prewitt, Hurt, Mudd, and Hanna. Dr. Hughes closed the discussion. Paper referred.

Dr. F. J. Lutz suggested that there should be more permanent arrangements made for the reception of books and reports sent the Society from different State Associations.

On motion Association adjourned to 8 P. M.

---

*A syringe for this purpose has been made by Geo. Tiemann & Co., 67 Chatham St., New York, by suggestion of Dr. Todd, having a capacity of four fluid ounces, and three needles of graduated sizes, suiting the instrument to all ages. It would seem that this instrument of Dr. Todd will find ready use in many ways, as for exploratory aspiration, and for the emptying of small deep-seated abscesses; also where alcohol is to be injected in large quantities in any adynamic condition.

J. H. THOMPSON, Sec'y.

Digitized by Google

NIGHT SESSION.

Meeting called to order at 8 P. M. by the President, H. H. Middelkamp.

Minutes of last meeting read and approved.

Dr. J. H. Thompson of Kansas City read a report on the progress of ophthalmology. Discussed by Drs. E. R. Lewis and Fryer. Referred.

Dr. F. J. Lutz read a paper on the Disease and Treatment of Cicatrices and reported two illustrating cases. Discussed by Drs. Prewitt, Halley, Griffith, Fryer, Jackson, Geiger and Mudd. Paper received and referred.

Dr. J. P. Kingsley read a paper on Malaria in Children. Discussed by Drs. Mudd of St. Charles, Nelson, Johnson and Stringfellow. Paper received and referred.

On motion Association adjourned.

SECOND DAY.

MORNING SESSION.

Association was called to order at 9:30 A. M. by the President. Minutes of the last meeting read and approved.

The treasurer, Dr. C. A. Thompson, presented his report for the year 1884-1885.

TREASURER'S REPORT.

Missouri State Medical Association:

1884.	To C. A. THOMPSON, *Treasurer*.	DR.	CR.
May 22.	To Dues paid by Members -	$ 453.00	
1885.			
April 21.	To Collected Claim against Maston Bank, 211.70, less 10 per cent. cost of Collection - - -	190.63	
May 12.	Total - - - - - -	643.63	
	By paid approved accounts, herewith submitted, and balance due Treasurer - - - -		$ 276.81
" "	To balance in Treasury - -	366.82	

Respectfully submitted,

C. A. THOMPSON, *Treasurer*.

ST. JOSEPH, MO., May 12, 1885.

Digitized by Google

The President appointed Drs. C. A. Todd, J. W. Jackson and J. R. Mudd Auditing Committee.

Dr. Allen moved that Dr. N. E. Estell be invited to participate in the proceedings of the Association. Carried.

The President appointed the following as the Committee on Nominations: Drs. J. M. Allen, H. H. Mudd, L. J. Matthews, C. L. Hall and B. J. Milam.

Committee on Scientific Communications made a partial report.

The Auditing Committee reported favorably on the report of the treasurer. Report received.

The Secretary read a letter from Dr. J. E. Tefft, Chairman of the Committee on the Collective Investigation of Disease.

Dr. Catlett of St. Joseph read a paper on the Asylum Treatment of the Insane.

On motion the paper was received and referred without discussion.

The President delivered his address. Received and ordered printed.

Dr. Hanna made the following motion:

"Moved that the recommendations in the last part of the President's Address be referred to a Committee, which shall report when ready." Carried.

The President appointed the following on that Committee:

F. J. Lutz, C. A. Thompson, N. A. Drake, N. F. Essig, and E. M. Nelson.

Dr. Catlett invited the members of the Association to visit the Insane Asylum at 4 P. M. Accepted. It was understood that there would be no adjournment at that time.

Dr. Hanna, Chairman of the Committee on the Diseases of Children, made his report. Received and referred.

Dr. Prewitt, Chairman of the Committee on Necrology, presented the following resolutions:

It having pleased Divine Providence to take from us our friend and associate, Dr. P. V. Schenck, in the name of this Association we present this most sincere tribute of respect.

Dr. Schenck possessed to a marked degree the qualities that unite to make the Christian gentleman and trustworthy physician. Honorable and kindly in his relations to friends and patients, his great enthusiasm for science did not lead him to forget the fellow being in the case. His geniality and his vigorous participation in affairs, are too fresh in our minds to need restatement; their recollection increases our sense of the loss we have sustained.

Digitized by Google

Dr. Schenck's loyalty to duty was such that, although freely conscious of the necessarily fatal nature of the disease which, after holding him face to face with death for months, finally claimed his life; notwithstanding this knowledge, he continued in the active performance of his manifold and arduous duties as teacher, clinician and practitioner up to the very moment of his death. Dr. Schenck was cut off in his prime, and we lament both the loss of a friend and of the man of science, who promised to do so much to advance the cause of his profession.

We extend the sympathy of this Association to his bereaved family and share with them the sorrow which his loss has entailed upon them as the husband and father, upon us as his friends, associates and co-workers in the field of science.

T. F. PREWITT.
H. H. MUDD.
L. J. MATTHEWS.
C. A. THOMPSON.
JACOB GEIGER.

Dr. B. F. Wilson, Chairman of the Committee on the Progress of Medicine, presented his report; selecting for his subject Typhoid Fever.

Discussed by Drs. Allen, Dewey, Records, Fitzgerald, Hanna, Stringfellow, and Matthews. Received and referred.

Dr. Griffith, of Kansas City, presented to the Association a case of successful subcutaneous ostiotomy. The original trouble was disease of the hip-joint followed by extensive flexion of the thigh and ancylosis. To remedy which he divided the bone through the surgical neck of the femur subcutaneously, followed by plaster of Paris dressing. The result was most satisfactory. Report accepted.

On motion the Association adjourned.

EVENING SESSION.

Dr. Steele of St. Louis made a report on Orthopœdic Surgery. Paper received and referred. No remarks.

Committee on the recommendations of the President made the following report:

ST. JOSEPH, MO., May 13, 1885.

MR. PRESIDENT:—Your committee to whom were referred the recommendations of your president in his annual address, beg leave to make the following report:

The committee recommends that the first suggestion, viz., to secure the appointment of a Board of Examiners, be referred to the Committee on State Medicine to report at the next meeting.

Digitized by Google

They recommend that the Corresponding Secretary be constituted the custodian of all journals and volumes which by exchange, gift or otherwise become the property of the Association, and that he be instructed to arrange with the librarian of the State University at Columbia for the deposit of such volumes in the University Library, at the will of the Association. The committee further recommend that, for the more perfect accomplishment of this object, the Corresponding Secretary be made a permanent officer of the Association.

The committee also recommend that a Committee on Collective Investigation of disease be added to the list of Standing Committees.

That a Sub-Committee on Microscopy and Photography and one on Psychiatry be constituted under the Committee on Progress of Medicine. Also a Committee of Anatomy and Physiology, and another on Forensic Medicine.

Respectfully submitted,

FRANK J. LUTZ.
C. A. THOMPSON.
N. A. DRAKE.
N. F. ESSIG.
E. M. NELSON.

Dr. C. L. Hall introduced the following resolution, which was under the rules, laid upon the table for one year.

WHEREAS, The Missouri State Medical Association has for many years been a migrating body, and may now be considered an established institution, and,

WHEREAS, It is desirable to have a permanent place of meeting and that place be as centrally located as possible; and,

WHEREAS, It has been suggested by the President and other members of this Association, that there be provided a place for the safe keeping of valuable papers, etc., belonging to the Association. Therefore, be it

Resolved, That hereafter The Missouri State Medical Association meet regularly at Sweet Springs, Saline Co.

Dr. Funkhouser read a paper on the Determination of the Sexes. Discussed by Drs. Evans, Matthews, Wale and Johnson. Received and referred.

Dr. C. A. Thompson made a verbal report of a case of Intra-uterine Fracture. Discussed by Drs. Steele, Hurt, Brent, and others.

President read the report of the Board of Health Committee by Dr. McAlister. Received and referred.

COLUMBIA, MO., March 2, 1885.

To the Missouri State Medical Association:

We, your Committee on Medical Legislation, met at Jefferson City, January 29, 1885, held a conference with a committee from the Legislature

Digitized by Google

and also an informal meeting with the various physicians—members of Senate and House. Also the Board of Health was represented by this Society in the person of Dr. J. C. Hearne.

This committee urged a formal appeal to remedy the more glaring defects of the present health law; at least not to repeal the present health law. An agreement was made to strike out Sec. 10, and also to amend the "five year clause."

A. W. McAllister, Chairman.

Dr. Thornton read by title a paper on The Importance of Local Mercurial Treatment in Syphilis, by Dr. Ohmann-Dumesnil.

Dr. Steele moved that when the Association adjourns it shall be to meet at St. Louis the first Monday in May, 1885.

Dr. C. A. Thompson moved that the question be deferred until the evening session. Carried.

Dr. Neison, of St. Louis, offered the following resolution:

Resolved, That the Committee on State Medicine be requested to take under careful consideration the urgent necessity of the establishment in this state of an institution for the education and care of idiotic or feeble-minded children; and further, the necessity of providing a central institution for the care and treatment of the chronic and incurable insane in order to relieve the pressure upon local institutions.

Carried.

NIGHT SESSION.

Association called to order at 7.30 P. M., by the President. Minutes of the previous meeting read, corrected and approved.

Dr. Steele moved that when the Association adjourns it shall do so to meet in St. Louis the Monday preceding the first Tuesday in May, 1885.

Dr. Sloan offered the following amendment: That the Association meet the Monday preceding the day of meeting of the American Medical Association.

Dr. Hurt moved to substitute by suggesting Saturday for Monday in St. Louis. Amendment lost. Dr. Sloan's amendment carried.

Committee on Scientific Communications made a partial report.

Dr. Brooks read a paper on Injury of Great Joints. Discussed by Drs. Prewitt and Brent. Referred.

Dr. Hurt moved that the rules be suspended and that the Association proceed to ballot for President. Carried.

Dr. G. C. Catlett, of St. Joseph, was unanimously elected President of the Association for the year 1885-6.

On motion Association adjourned until May 14, 9 A. M.

Digitized by Google

THIRD DAY.

MORNING SESSION.

Association called to order by the President at 9 A. M. Minutes of the last meeting read and approved.

Dr. C. A. Thompson moved that the Association adjourn at 12.30 P. M. Carried.

Dr. Hunt moved that a committee of three be appointed to notify Dr. Catlett of his election and to escort the new President to the Chair. Carried.

President appointed Drs. Brent, Jackson and Marsh that Committee.

Dr. W. J. Walker read a report on the Progress of Surgery. Discussed by Drs. Prewitt and Priest.

Dr. F. J. Lutz offered the following:

Resolved, That it is the opinion of this Association that all larger Medical Societies should demand of their members strict adherence to the Code of Ethics of the American Medical Association. Amended by Dr. C. L. Hall. "The State Association should impress upon the local societies the same injunction." Carried as amended.

Dr. C. A. Thompson moved that the President be allowed one month to make appointments on committees and the Secretary to publish the lists in the Medical Journal of the State. Carried.

Committee on Nomination made the following report:

Mr. President and Gentlemen of the Missouri State Medical Association:

Your Committee on Nominations beg leave to report the result of their labors. Our deliberations have been harmonious, and while we were compelled to relinquish personal preferences we have endeavored to select gentlemen from the different portions of the State who are entirely worthy and competent to perform the duties imposed:

For First Vice-President - - - - -	C. A. TODD, St. Louis
For Second Vice-President - - - - -	J. W. BRENT, Tipton
For Third Vice-President - - - -	J. W. JACKSON, Kansas City
For Fourth Vice-President - - -	D. H. SHIELDS, Hannibal
For Fifth Vice-President - - - -	G. M. DEWEY, Keytesville
Recording Secretaries - - - -	J. H. THOMPSON, Kansas City J. C. MULHALL, St. Louis

Digitized by Google

Corresponding Secretary - - - - - R. F. BROOKS, Carthage
Treasurer - - - - - - - C. A. THOMPSON, Jefferson City

All of which is respectfully submitted,

J. M. ALLEN.
L. J. MATHEWS.
H. H. MUDD.
B. J. MILAM.
C. LESTER HALL.

Dr. O. A. Williams made the following motion:

WHEREAS, Dr. C. A. Thompson of Jefferson City, Mo., has been our Treasurer for many years; and,

WHEREAS, Said Dr. Thompson has with great labor and care discharged the duties of Treasurer with pleasure and profit to the Association. Therefore, be it

Resolved, That we hereby extend to our worthy Treasurer, Dr. C. A. Thompson, our hearty thanks for his valuable services and untiring energy and interest in the medical profession of Missouri.

Unanimously Carried.

Resolution of the McDowell Medical Association presented by Dr. Williams, and on motion of Dr. C. A. Thompson approved and referred to the Committee on State Medicine.

Resolved, That we, the members of the John McDowell Medical Association of Missouri, do hereby request the State Medical Association to use their influence in whatever manner possible in maintaining, improving and upholding the State Board of Health of Missouri.

J. B. STEWARD, President.

S. H. REDMAN, Secretary.

MORNING SESSION.

Dr. Evans of Boonville made the following motion.

Resolved, That the Committee on Publication be instructed to embody, in the form of an appendix to the printed Transactions of the Association, the Constitution and By-Laws of the State Medical Association.

Carried.

Dr. J. W. Brent moved that the Code of Ethics of the American Medical Association be also printed in the Transactions. Carried.

Dr. F. J. Lutz introduced the following motion, which was carried.

Resolved, That the thanks of this Society are due and are hereby expressed to the citizens and physicians of St. Joseph for the kind reception accorded to this Association; to the press and railroads for the interest shown in our proceedings, and especially to Dr. Catlett for the many courtesies shown the members and to the retiring officers for the faithful and satisfactory manner of performing their duties.

Digitized by Google

Dr. Shields made a verbal report in behalf of the Committee on State Medicine. "It had been almost impossible to secure the passage of laws restrictive of the habits and customs of the people, such as had been urged by the Association. Dr. O. A. Williams by great effort had secured the continuance of the Board of Health, which was accomplished only by compromise; provisions being introduced that were distasteful to the Association, but necessary to secure the vote of the Legislature; $6,000 was voted to defray the expenses of the Board for two years. At the last session, through the newspaper attacks on the personnel of the Board and through other hostile influences, such an opposition had been raised that five bills to repeal the Board of Health were severally introduced. These only failed because of large majorities required. A bill allowing $11,000 for the expenses of the Board was introduced by the committee in charge, but the appropriation was refused. Twenty-eight states, including Illinois, Arkansas, Iowa and Kansas surrounding Missouri have enacted statutes creating Boards of Health, Missouri is the first to refuse to sustain such a statute, hence Missouri is liable to be flooded with quacks if some means be not taken to maintain a State Board in its power. The State having refused to appropriate, the profession must be looked to to support the Board; by individual gratuitous services, as well as in every other way that shall be found essential. The Governor may think because the Legislature refused to make an appropriation, the people are opposed to the act creating the Board, which is not the case. The Profession should labor to sustain the people in the salutary object of the Board and secure their cooperation at the next meeting of the Legislature.

By expiration of term of office July 1, 1885, and by resignation, the whole personnel of the State Board of Health may change at that date. As these appointments are in the hands of the Governor, it is desirable that he should understand the present condition.

Dr. Shields offered the following resolution:

WHEREAS, The Thirty-Third General Assembly in its wisdom, based on a prejudice to individual members of the State Board of Health, failed to make an appropriation for maintenance of said Board, thus jeopardizing the utility of our Practice Act, and Health laws, therefore, be it

Resolved, That this Society request the Governor to keep the Board of Health intact by filling all vacancies in such Board as they may occur.

Carried.

Digitized by Google

Dr. Shields moved that these resolutions be properly engrossed and sent by the Secretary to the Governor as soon as possible. Carried.

Dr. Williams moved a vote of thanks be extended to Dr. Shields for his labors in behalf of the State Board of Health Bill. Carried.

Dr. C. A. Thompson offered to investigate the legal status of the Association which was in doubt.

Dr. Heddens made a motion accepting the offer of Dr. Thompson, and that the President with Dr. C. A. Thompson be made a committee to take charge of that business and report at the next meeting of the Association. Carried.

The committee of three appointed by the President escorted the President-elect, Dr. Catlett, to the chair, who thanked the Association for the honor conferred on him.

The outgoing officer, Dr. H. H. Middelkamp, responded to the remarks of Dr. Catlett, and surrendered formally his gavel of office.

Minutes of the meeting read and approved. Association adjourned to meet in St. Louis the Monday preceding the day of meeting of the American Medical Association.

J. H. Thompson, Secretary.

Digitized by Google

The President's Annual Address.

H. H. Middelkamp, M. D.

Gentlemen of the Missouri Medical Association:

A STRICTLY observed custom makes it obligatory on the president to deliver an annual address. Permit me at the outset to again thank you most cordially for the great and undeserved favor you have conferred upon me. You have my deepest and lasting gratitude, with the hope that you will extend to me your charitable forbearance for many imperfections and shortcomings. Trusting that you will lend me your kindly assistance in presiding over your deliberations, it shall be my constant aim to fill the chair in an impartial manner and to the best of my ability.

Some few thoughts that are uppermost in my mind on some of the questions that seem to engage the professional mind mostly at this time shall form the basis of my remarks, to which your attention is most respectfully invited.

Medical Education.

No one will pretend to deny that the standard of medical education is being gradually and steadily elevated. Experience as well as observation indicate a healthy and a progressive advance all along the line of medical instruction. We, as Americans, can certainly feel satisfied with American efforts and accomplishments. We will surely be permitted to point to the advances and productions made in the various branches of medicine. But while we have great reasons to feel proud of the progress made, there is still a great deal to be done to raise and elevate the standard of medical education to that point it should ultimately reach in its elementary as well as in its higher branches. We instinctively turn with hopeful eyes to the teachers and leaders of our profession for still greater im-

Digitized by Google

provements in the methods of teaching and in the advancement of the boundary of medical knowledge. While we are of necessity depending on the medical schools, to a great extent, for the solution of the vexed question of medical education, it is believed that the members of the profession and the schools are equally responsible as well as entitled to the credit for the work done. You, as members, are as much to blame for the entrance of unworthy and imperfect material into the ranks of the profession as are the schools. Why blame and decry the schools when you send them unfit material? You send the material and the schools utilize it. All are equal sharers in the honor as well as the dishonor of the professional household. No one can claim exemption from responsibility. Every member who is applied to for advice and guidance in regard to the study of medicine should recognize the importance and the responsibility of his position, in order to do his full duty to all concerned. Scrutinize your material thoroughly, and if found unworthy in any respect, reject it. The moral qualifications should be canvassed, as well as the literary endowments and attainments of the prospective medical student. Ignorance may be overcome by education and application; but immorality is an incurable defect; hence the doors of the profession should be closed to that class of applicants. Before it is decided to reject the applicant, be sure to give your reasons for so doing plainly; fully and candidly stated. It may be considered an unpleasant duty, but nine times out of ten it will be rewarded by good results. The student will either depart satisfied that he is not adapted for the vocation of medicine, or he will prepare himself more thoroughly for its study. There is no doubt if the above indicated course were adopted by the profession generally, that the character of the medical students would improve fifty per cent. Who doubts that, if reform comes at all, it must and will come from the ranks? Improve the soil and the product of that soil must improve in like ratio. Remember, when you take a young man into your office for study, act toward him as a true teacher should. The position of the medical preceptor is of as great, if not greater importance than that of the professor in the medical college. No one exerts as great an influ-

Digitized by Google

ence or sustains a closer relationship to the student than does the preceptor. He is the moulder and shaper of the student's entire future medical career. His teachings and example are indelibly impressed on the mind of the student, as you all know from personal experience. How important, then, that he should possess the moral as well as the medical and literary qualifications so necessary for this important work. The foundation of the student's medical education is laid by the office preceptor, and it is a work that cannot be overestimated. Let him therefore start the student in the right direction, so that the work may be pursued in a systematic, direct and thorough manner. This would aid the schools immensely in selecting the proper material for doctors. It is with a deep sense of regret that all will and must admit that students are frequently selected in a very loose and slip-shod manner. The work should not cease here, but the same scrutinizing course should be pursued until the student is qualified to graduate from the college. The profession should advise and direct their students to the best and most thorough schools. By best and most thorough schools is meant those medical colleges whose methods of teaching are first-class, thorough and complete, and whose curriculi are extensive, graded and progressive. Not wishing to draw invidious comparisons, but permit the expression of the opinion, deliberately formed, that it is clearly the duty of the rank and file of the profession to encourage and support, other things being equal, the three or long term graded colleges, in which a preliminary examination is required and strictly and faithfully carried out. It is to be regretted that these schools have not met with that support they deserve, and are so clearly entitled to. Every member of this association will admit that, the adoption of the three-term graded courses is a grand step in the right direction for the real advancement and elevation of the standard of medical education. This is a step all first-class medical colleges will be compelled to take sooner or later. The people, the profession, and most of all, the progressive tendency of medical science, demand a more thorough and complete training of our medical students. An earnest and anxious appeal is here made for the extension of the term of

Digitized by Google

instruction and the grading of the classes in our medical schools. The schools should also add some of the following branches to those now taught, viz: Microscopy, Sanitation, Pediatrics, Forensic Medicine, Insanity, and Mechanics in Medicine and Surgery. These are all important subjects, but the last named is especially so, on account of the inventive age in which we live. Students should receive systematic instruction and training in mechanical appliances to be able to meet the growing and ever increasing demands of the times. The advantages to be derived from a knowledge of the branches named is apparent to all. The position is here assumed that, if every member of the profession would consider himself personally responsible for the defects in the methods of education, much reform would be brought about, by which, the profession would get rid of a great deal of the vast amount of the driftwood which is now floating in its channels.

The progress of medicine shall next engage our attention. The advances made in the domain of general surgery are apparent to the most casual observer. The progress in the special field of abdominal surgery is indeed wonderful and inspiring to those engaged in that line of work, both as regards diagnosis and operative procedure. The efforts of Billroth, Lawson Tait, Wells, our own surgeons and others in abdominal surgery are brilliant beyond conception. But a few years ago the abdomen was considered an undiscovered and barren territory to the efforts of the surgeon. It was, indeed, unknown and unclaimed by the genius of surgery. It may be compared to the until lately undiscovered and unexplored continent of Africa, when Livingstone and Stanley startled the whole civilized world with their grand explorations and discoveries. So, through abdominal surgery a new impetus has been given to the whole domain of medicine. It is daily adding new triumphs to operative surgery. A new era has dawned on the surgical world. It may be considered a mile-stone on the field of extension of the daring acts of the progressive surgeon. In this department of our science superior skill, undaunted nerve and courage must go hand in hand, and it is a field that holds out much promise of relief and saving of life to suffering human-

Digitized by Google

ity. Much, it is claimed, will result from it in gun-shot wounds of that region. The happy results obtained by a New York surgeon and others in wounds and injuries of the abdominal cavity indicate that, opening that cavity will be the treatment of the future. We are led to hope that military surgery will be immensely benefited by abdominal surgery. In fact, the kidneys, the stomach, the gall-bladder, the uterus and its appendages are now brought under the operative skill of the surgeon. New operations are being constantly devised; in fact, there seems to be a rage for new operations.

Antiseptic surgery is another grand realization of human effort and experimental knowledge. Joseph Lister's name will go down in medical history, an honor to his profession and a benefactor to mankind. His example and surgical character will prove a beacon light to guide and encourage coming generations of surgeons. The whole surgical world has been revolutionized by his teachings and methods of antiseptic surgery. Where is the surgeon who does not feel himself indebted to Lister's teachings? We have the grand discoveries of Koch, in the field of microscopy. He gave us the bacillus of tuberculosis and the comma bacillus of Asiatic cholera. It is just three years since he first promulgated the discovery of the bacillus tuberculosis, and already a flood of new light has been thrown on the pathology of consumption. A new and wonderful impetus has been given to the investigation of internal diseases by the microscope in the hands of numberless observers all over the civilized world. Ten thousand microscopic lenses are at work aiding the investigators in searching for the marvelous little germs. We may expect grand results in the wonderful science of microscopy. Koch's name has been carried on the wings of reputation to the distant parts of the globe with almost as great rapidity as the blush of early morn travels westward. Ten years ago Koch was a plain country practitioner of medicine at a great distance from the German capital. Here we have an example of what persistent and well directed labor may accomplish. This address would certainly be considered incomplete unless mention be made of cocaine, the most wonderful medicinal agent of modern times. It is a drug that

Digitized by Google

commands a fabulous price. The journals have been full of its wonderful effects, as the most certain and effective local anæsthetic known. Otherwise, time will accord to it the proper place in the Armamentarium Medicum. The two last decades have brought more real advancement in the science of medicine than the two centuries preceding. Your speaker feels himself entirely unequal to the task of even mentioning in a chronological order a fraction of the improvement wrought in the last five years. Hence will leave the subject of the progress of medicine for your most thoughtful reflection and study.

Preventive medicine is opening a vast field of possibilities. There was a time when, we were only called to relieve and rectify disease, but now another grand sphere has been added to our labors—that of preventive medicine. We now are not only expected to cure, but it is our duty to prevent disease, and even meet it before it makes its appearance. This may be accomplished in a thousand different ways, and the more we study this subject the grander becomes the field for action. Preventive medicine is still in its infancy, and we stand but on the threshhold of this wonderful and promising science. The ambitious physician will find in it a field for his life's best efforts. Here is a mine more precious than gold, let us cultivate it with all our powers. We should prevent disease as well as aim to cure. Curative medicine and preventive medicine should go hand in hand to relieve and bless mankind. The profession has a great mission before it just at this time—that of preventing the entrance and spread in this country of the dreaded pestilence, Asiatic cholera. The people, it seems, are perfectly dormant in face of the approaching danger. Perhaps in less time than eight weeks from now the cholera will have reached our shores and will have begun its march of death and devastation. Should nothing of importance be done to control its entrance until after it obtains a foothold in the United States, it will be too late to master its ravages. To be forewarned is to be forearmed. Are we doing our duty? Is the profession meeting the demands of the danger? Are we aware of the extent of the threatened invasion that may stand before us, a ghastly reality, at any moment, are questions that are left to your

Digitized by Google

thoughtful consideration and reflection. Let the profession meet its duties faithfully and earnestly.

Your president desires to make some suggestions and recommendations for your consideration and approval:

First—There cannot be any doubt in regard to the utility and propriety of this association asking the law-making powers to establish a Board of Medical Examiners for this State—such a board as will meet the demands of the people and the profession of the country. If we desire and expect aid from the Legislature, we cannot do better than ask for a Board of Examiners, a board composed of the most eminent and reliable of our profession. It is well enough for medical colleges to confer degrees, but licensing power to practice medicine, surgery and midwifery should be vested in a State Board of Medical Examiners. Your speaker would suggest further that the question of a Board of Medical Examiners be referred to a special committee for their consideration and action, the committee to have full power to draft a bill, with such additional instructions as the association, in its wisdom and deliberation, may direct.

While the Legislature has failed to sustain and make appropriations for the Board of Health, it is still our duty to go ahead in the work of preventing and controlling epidemics, and improve medical education. Let us be patient and determined in the good work.

Second.—Permit me to urge upon you the necessity of establishing a State Medical Library, for the use and advantage of the profession. Have it located in one of our principal cities. The time has come when the association should be in the possession of a library. Books, pamphlets and monographs are multiplying rapidly, and in this age a library is an urgent need. A nucleus can be formed at once.

Third.—Additional committees should be appointed by the association. Your president has taken the liberty to create several, of which that on Collective Investigation is especially desired to be retained.

Fourth.—A Committee on New Inventions.

Digitized by Google

Fifth.—A Committee on Microscopy and Photography in Medicine and Surgery.

Sixth.—A Committee on Advances in Physiology.

Seventh.—A Committee on Necrology.

Ninth.—A Committee on Forensic Medicine.

In conclusion, permit me to offer a few words of tribute to our honored dead. They have sealed their labors with their lives, setting us the example of laboring for the good of our noble profession, and having spent lives of toil for suffering mankind. No greater eulogy can be written of the greatest of our race than the testimony—"He was a noble physician, faithful to his patients, true to his profession, ever jealous of his own good name, humble in success, and composed and resigned in apparent failures." Such were our fellows, of whom we mention the names of a Linton, a Pope, a Hodgen, a Moore, and a Schenck. Peace to their ashes. Their works live after them. Their worthy deeds have made medicine a sacred calling to us who aim to follow in their footsteps. May we imitate their example.

Digitized by Google

ESSAYS.

ATROPHIC NASAL CATARRH.

By J. A. Mulhall, M. D.

I EMPLOY the word "catarrh" out of deference to general usage. Its incorrectness is obvious. Atrophic catarrh is the disease meant when one speaks, of simple or idiopathic, or strumous ozena, that is, the ozena which has nothing to do with syphilis or neoplasm or foreign body. Ozena is but a symptom of various disorders. The term simple ozena is likewise incorrect, for though it corresponds to atrophic catarrh, the latter condition may exist without ozena. The scientific term is "atrophic rhinitis."

Most authors make a convenient division of nasal catarrh into simple, hypertrophic and atrophic, the latter being usually considered but a stage subsequent to hypertrophy. With this generally accepted belief I venture to differ for these reasons: 1. In the vast majority of cases of nasal catarrh with hypertrophy, atrophy does not occur. 2. I have not yet read the record of a case where the same observer has noted well

Digitized by Google

marked signs of both stages in the same individual. 3. Atrophic catarrh in the overwhelming majority of cases (in my experience in all cases) dates its origin from childhood, whereas in the hypertrophic variety, the majority date their symptoms after childhood. 4. Atrophic catarrh is more frequent in females, hypertrophic in males.

Atrophy of any structure, not preceded by inflammation of that structure, is always, I take it, of neurotic origin. Now, though I believe atrophic catarrh to be of inflammatory origin, I do not believe it to be of the degree or kind of inflammation that produces thickened tissue. The mothers of these patients do not give a history of severe colds in the head, nor that they have observed these children to have specially suffered from obstructed nasal breathing. So well am I convinced that in the majority of cases atrophy in the nose is not the sequence of hypertrophy there, that if a mother brought me her nine year old child afflicted with nasal catarrh and asked whether any probability existed that the disease would later on become stinking, and I found *true* hypertrophy (for there is an apparent, a false hypertrophy) I should predict that the catarrh would never become fetid, unless the child were strumous, in which case, however, I would hardly find *true* intra-nasal hypertrophy. Given two children one with tubercular antecedents, the other without family disease of any kind, I have found that the healthy child acquires an acute coryza much more readily than the other; its materials are more combustible, its vital current more vigorous, its exposure to cold more frequent, but the results are very different. The healthy child's coryza comes readily but departs quickly, that of the tubercular or scrofulous subject comes unwillingly but remains long. In the hypertrophy of the healthy subject the tissues are red, dense, resisting, and in that of the unhealthy subject, pale, soft, and unresisting; ozena improbable in the former, easily possible in the other.

There are no absolute rules in medicine. I readily concede to others that atrophic catarrh may commence in adult life, is sometimes the sequence of true hypertrophy, and that it occurs in those whose history, personal and family, there exists no morbid

Digitized by Google

condition, but both are exceptional. I do not believe that the disease is related to any diathesis in particular, unless the condition known as struma or scrofula be considered a specific condition. Some consider scrofula to be related only to tubercle, others, as the late Professor Gross, only to syphilis. A far more rational view I consider to be that one which considers scrofula to be the result of a conception at the time of which one or both parents suffered from any condition, active or passive, which greatly enfeebled the organism, be it consumption, or syphilis, or cancer, or alcoholism, or old age, or other condition. The most frequent of these conditions is tuberculosis, and this is the only reason why we find it more often in the family history of atrophic catarrh than any other disease. The intra-nasal lesions of advanced hereditary syphilis have never been grouped and described. It has certainly nothing to do with syphilis directly. One fact alone would prove this; advanced intra-nasal syphilis lesions are ulcerative. Atrophic rhinitis is not ulcerative; nor has pathological research (and we owe most in this line to Fraenkel and Zuckerkandl) thrown any light on the cause of this strange malady.

Zuckerkandl found post-mortem any or every part of the nose affected, the entire lining membrane, the septum, the turbinates, the ethmoid, the outer wall of the internal nose, even occasionally the adjacent cavities; sometimes only the middle turbinates or the inferior turbinate. The disease was sometimes unilateral. The bones and membrane were usually atrophied in like proportion. In some a mere trace of a turbinated bone was found. Where the middle turbinate was affected all signs of olfactory nerve filaments had disappeared. In some cases he found hypertrophy and atrophy side by side, thus confirming to a degree the clinical view that atrophy is subsequent to hypertrophy. In no case did he find an ulcer or a scar. The theorists who have made no post-mortems maintain the opinion that contraction follows the newly formed bands of fibrous tissue, that the hypertrophy by a species of self-strangulation produces atrophy.

The diagnosis of a well-developed case is a simple matter to the rhinoscopist; so characteristic is the picture that he need

Digitized by Google

not ask a single question. No other disease even resembles it.

Of all the organs in the body accessible to sight and touch, none is so frequently prescribed for without being properly examined as the nose. Given a man with the symptoms of a nasal catarrh, and I assert that the vast majority of physicians will prescribe for him without physical investigation; some might examine the anterior, still fewer the posterior nares. Surely no one will deny this to be irrational, irregular, unfair to the afflicted and to science. When medical colleges compel their students to master the easy art of rhinoscopy there will be much less general reproach that we are powerless in the cure of "nasal catarrh." Without the rhinoscope, diagnosis must be but guessing and treatment the work of chance. Nasal catarrh is but a symptom dependent on many diverse conditions and if this be so, signs, not symptoms, should be the foundation of the diagnosis.

One illustration: I know of a case, a child, who had suffered five years from a unilateral purulent fetid discharge, who had been treated by several physicians at various times, each on the assumption that the child suffered from strumous ozena: not one properly examined the nose. A foreign body was readily found impacted at the middle of the lower meatus, with whose removal the child, of course, at once recovered. On examining the nose in atrophic catarrh, if the patient has been untreated, or has not cleansed the nares, we usually find the cavities crowded with crusts, white, yellow, green or often black if the patient live where soft coal is burned. The secretion may however be entirely fluid, generally yellow. Before we can make a diagnosis the nose must be freed from every trace of secretion, often a difficult and tedious matter. In advanced cases we are struck by the roominess, the width of the cavities. We see the pharynx readily through the nose, or the superior meatus, or the semilunar fissure. Zanfal thought these roomy cavities to be congenital, and that the consequent feeble current of air assisted in the retention, dessication and putrescence of secretion, an opinion which Zuckerkandl's post-mortem researches thoroughly demolished. Symmetry may or may not be a feature. We may see the middle turbinate barely

Digitized by Google

covered with thin tense membrane overhanging like a crag a perfectly normal inferior turbinate. We usually find the membrane pale and shrunken and dotted at irregular intervals with little crypts or depressions, the result of unequal degrees of atrophy. It is important to study these well, for their presence may be of great assistance in determining in a given case whether atrophy is about to commence or not. If the nose be not thoroughly cleansed the mucus remaining in these little sunken spots may cause them to be mistaken for ulcers; quite an error for an extraordinary feature of the disease is that there is never ulceration. There may be several erosions caused by ill-directed efforts at cleansing, by the edge of a hard crust or by the finger nail, but even these are exceptional. Cancer,syphilis, tubercle, lupus, leprosy, glanders, foreign body are associated in the nose with ulceration, but catarrh, hypertrophic, or atrophic, is not. The fetor in this disease has been the cause of much confusion, and has given the disease its usually accepted title, ozena simplex. It is quite possible that the profession at large understands what is meant by this name, but rhinology, which has made such great advance in the last decade, has shown why this name should not be perpetuated, how by substituting the term atrophic rhinitis all confusion is avoided. As I have said before, at one stage of the atrophy there may be no ozena. Later on there may be any degree of it, from a simple musty odor barely perceptible to a fetor which is most pronounced, but it is never so horrible as when membrane or bone is ulcerated, as from syphilis, cancer, or foreign body. It has been claimed to be peculiar, and inasmuch as at many stages the disease resembles no other, this may be admitted, but the interest of this observation ceases with its mention, since certain methods of diagnosis are available. Its cause has received various explanations, the most satisfactory of which attributes the decomposition to the influence of germs from without. In proof of the latter I have on several occasions thoroughly cleansed such a nose, and with such cleansing the odor has disappeared. Then I plugged up these nostrils with absorbent cotton, which filters air of all germs, instructing the patient to be satisfied with mouth breathing, till the following day, when, though I

Digitized by Google

found secretion present, I found neither crust nor foul odor, or but little. It is well to remember that the patient does not perceive his own foul odor, and must consequently consult some one else, to know if it be present during treatment. Of some fifty cases that have come under my observation, in but one was an accessory cavity of the nose diseased, the maxillary sinus. To exclude disease of these cavities, it is simply necessary to absolutely cleanse the nasal cavities proper, being careful not to use any antiseptic, since this would deceive, when, if the adjoining spaces be healthy, no odor can be perceived. If one should find it utterly impossible to remove odor from the nose by properly conducted cleansing and if there be in addition supra- or infra-orbital pain or other signs we may conclude that the frontal or maxillary sinus is involved. The prognosis, in my observation, is never in doubt. Atrophic catarrh is incurable. I believe I am right in stating that well marked atrophy in any part of the human frame is seldom or never curable.

My opinion needs some elaboration since such an author as Cohen states in his book on Diseases of the Throat and Nasal Passages, that these cases often spontaneously get well towards middle life, and this is strengthened by the observation of Michel, of Cologne, in his book on the same subject, that we do not, or very rarely, see this disease after the age of fifty. Both statements, I think, are based on imperfect clinical observation. The truth of the matter is, I think, as follows: As these patients get older, and the disease progresses, the mucous glands one, by one, yield to the atrophic process, until finally they are quite extinct. Now these glands are the ones which supply the adhesive mucus, the serous glands supplying the more watery element. The mucous glands furnish the thicker secretion which forms the crusts; without such secretions and crusts there is no fetor. If, therefore, we have complete atrophy of such glands nature has effected an amelioration, but not a cure, and if we examine these noses in after years, though secretion be spare and fetor absent, we will nevertheless see atrophy, and find that the lost sense of smell has not returned. A German author uses the galvano-cautery in atrophic catarrh,

Digitized by Google

for no other purpose I can imagine than to hasten this apparent cure. This complete atrophy may require ten years or sixty years for its accomplishment. I have one patient, a clergyman, in whom crusts and foul odor have disappeared at the age of thirty-eight, and another, a lady, in whom at the age of sixty-four they have not yet quite disappeared. This gentleman has cleansed his nose from behind forward with a simple alkali daily for fifteen years. I will take occasion to state here an interesting point. The lady has suffered since childhood. She has had nine children. The first seven are healthy, the last two, conceived late in life, both girls, are subjects of atrophic catarrh. This lady, after being disappointed in early life with efforts at cure, abandoned all treatment until within the last year, when the headaches from which she had long suffered having become unbearable, she applied to me for treatment.

Though this disease be not curable, much may be done in amelioration. Local treatment may be summed up in one word—*cleanliness.* Those who consult text-books will find every possible kind of local medication recommended, stimulation being, as it should be in atrophy, the dominant idea. What I have not tried I have known others to try, and I make bold to assert that thorough, unremitting cleansing with an alkali, will effect all the good that is possible. It may be that when the atrophic process is just commencing, its progress may be arrested or even regeneration effected by combined local medication and general hygiene, but I doubt it. Apparent cures are frequent. No decision can be reached until several months after all treatment has ceased. I feel quite sure that with well marked atrophic catarrh, my statement holds good, and it is important, if true, both in the interest of the patient and of exact science. I have known such patients to have incurred great expense of time and money in the vain endeavor for a cure. It must be that the opinion of some specialists concerning prognosis is very different from mine. In a visit or two the patient can be taught how to wash out the nose. This must be thorough. At first it may be necessary for them to do so three or four times daily, but the crusts soon cease to form, and then a single daily washing will suffice.

Digitized by Google

In some old cases where the crusts are unusually dense and adherent, it may be necessary for the physician himself to remove them for two or three weeks, and by appropriate medication hasten the stage wherein crust formation no longer occurs, when he should resign further treatment into the hands of the patient. The patient should be told that the daily washing will be a matter of years, and can only be consoled with the advice that at some time towards middle life this will not be necessary.

In the list of unnecessary therapeutic agents I include antiseptics, for the following reasons: In the early stages of treatment they do harm, since they conceal the true condition of affairs, and tempt the patient to omit methodical cleansing, and thus delay arrival at the stage wherein crust formation or purulent secretion no longer occurs. If the nose be clean there is no odor, and therefore no need of antiseptics. If the nose be not clean there will be odor, and the indication for washing out exists. If a permanent antiseptic dressing could but be devised, in itself odorless, and permitting nose breathing, the case would be different. A simple plug of absorbent cotton in each nostril would be the best of all prophylactics to fetor, since such cotton filters air, as Tyndall has pointed out. Social exigencies may at times demand an antiseptic wash: the rationale of treatment does not. I order two instruments to be used, the ordinary anterior nasal douche and a posterior one, the latter being the one which eventually is alone used. I have never met with middle ear accidents or other mishaps from the use of the anterior nasal douche, but I always carefully instruct patients how to use them; and see them do it myself the first time. I think the most important point to know, in guarding against accidents, is whether one nostril be much narrower than the other. It is plain if the stream be allowed to enter through the wider nostril, that it enters faster than it can escape, collects in and distends the post nasal space, favoring entrance of fluid into the Eustachian tubes, and possible otitis media. In such cases therefore the patient should be instructed always to introduce the nozzle into the narrower nostril. The vault of the pharynx usually participates in the variety of catarrh with which the nostrils are affected. In atrophic catarrh the membrane here also is often atrophied and covered with

Digitized by Google

crusts, which an anterior nasal douche will not dislodge. I therefore also order a posterior nasal douche, the one known as Warner's Catarrhal Douche being the one I prefer. Patients readily learn its use. It is without danger and is easily carried in the pocket when necessary.

After several weeks the anterior douche may be discarded and the Warner Douche relied on for daily treatment. The general health must be brought up to the highest possible standard in order to assist in maintaining an improved local condition for such good health will not cure. I have known a patient to have gained 20 ℔s in six months from improved hygiene without any improvement in the local atrophy. Sometimes indeed the general health is perfect, and the subject robust and vigorous. Though this be exceptional, it is yet a sufficiently striking fact to imbue one with the belief that there yet remains to be discovered the actual cause of this strange malady, perhaps an organism so small that it has hitherto escaped the greedy eye of the microscopist, who, I may add, has not forgotten to look for it.

2305 Olive street.

DISCUSSION.

DR. TRADER asked if the alkaline wash was better than plain water. Objected to its use. Preferred warm water.

DR. MULHALL answered by stating that an alkaline solution would more thoroughly dissolve the crusts and secretions.

DR. CATLETT thought that if the alkali was too strong it would irritate the mucous membrane.

DR. MULHALL preferred to use plain salt.

DR. CATLETT thought that insanity was sometimes dependent upon this disease of the nose.

DR. HARRISON asked if the secretion in this disease was acid.

DR. MULHALL stated that in atrophic catarrh we cannot irritate the diseased membrane too much.

DR. SIMMONS regretted that the author was not more explicit in his pathology; believed that there was a great tendency on the part of specialists to ignore the teachings of pathologists, thinking that there was something different in the nose than is found in disease elsewhere; at any rate, thought it would be better if the teachers in colleges would devote more time to the nose and its diseases. Was very much pleased with Dr. Mulhall's definition of scrofula.

Digitized by Google

DR. RUMBOLD agreed with author in some repects, but disagreed in others. His experience was that, atrophic catarrh was invariably the sequence of the hypertrophic variety. Stated that the crusts found on an atrophied membrane in the nose were not the product of that membrane, but of some other. Could tell from the situation of the scabs the source of the exudation or secretion. If scabs covered the lower turbinated bone the secretion came from above, and it was useless to clean and medicate the membrane under these scabs, but we should treat the disease above and lessen the amount of secretion. Consequently in his opinion not all cases of atrophic catarrh were incurable. If we can reach the original diseased spot, keep it clean and apply proper medicines, there is every reason that many patients, if not cured, can be relieved.

DR. MULHALL in closing the discussion said that to believe he had made some post-mortem examinations and had found that the disease was always limited to the turbinated bones, and that the neighboring cavities were rarely inflamed or diseased. Disagreed with one gentleman. Stated that specialists had made a decided advance in the treatment of the diseases of the nose. Said that there was a decided difference between atrophic and hypertrophic catarrh, and gave the pathology of the two. "It is on account of the erectile tissue found in the nose that we are compelled to treat inflammation of its living membrane different than inflammation elsewhere."

ON CHOLERA.

BY JOHN H. TRADER, SEDALIA, MO.

ON account of the many articles which I have seen in the journals, in regard to the probable visitation and management of cholera, I am led to add my mite in the way of new or different methods of treating this fatal malady. What I have to say is a matter of experience. Ten or twelve years ago we had what appeared to be a few cases of genuine Asiatic cholera. The first case lived about six hours, the next case got well, the next died, and two other cases in the same family recovered. My partner, at the time, Dr. T. J. Montgomery (now deceased), who had passed through several epidemics of cholera, pronounced these cases genuine Asiatic cholera. I had made up my mind that the best way to treat this malady was by hypo-

Digitized by Google

dermic medication. I provided my case with a saturated solution of quinine, morphine, atropia, etc. I also had provided a mixture of chloroform ʒj, glycerine ʒv, M., and carbolic acid ʒj and glycerine ʒvj, M.

During the epidemic I was hastily summoned one night to the bedside of a patient in the first stages of cholera. There was great prostration, and the rice water discharges had begun, with excessive cramping of the abdominal muscles and the muscles of both upper and lower extremities. In order to relieve to some extent the violent cramps, I concluded to give a teaspoonful of the chloroform mixture. Soon after swallowing the medicine the patient desired to know what it was that I had given her, "for," said she, "I believe, doctor that you have killed me." The vomiting ceased at once, the cramps soon gave way, the patient began to breathe quite heavily and calling the family around her told them that she was dying. I took a second look at the bottle of medicine and discovered that I had given a teaspoonful of the carbolic acid mixture instead of the chloroform. About the only consolation that I could reasonably expect from this blunder was that the patient would have soon died anyway. To my surprise she soon went into a sound sleep. The skin became warm and the sweating ceased. No other medicine was given, and after five or six hours of sound sleep the patient awoke apparently well. Next day she was up and walking about the house and yard.

I could not account for so unusual an occurrence. Believing, however, that the carbolic acid had something to do in the restoration of the patient, I set about to devise some eligible way in which to give it. I used this formula:

℞ Mistura Glyc. et Acidi Carb.
Mistura Glyc. et Chlor.
Tinct. opii
" matico
Aqua Camph.
Aqua menth. pip.
" " virid. - - ʒj M.

Of this mixture I gave about 15 to 20 drops every five to ten minutes in hot water until relief was obtained. I must say that

Digitized by Google

I was not, am not now, disappointed in the power of this combination. I rarely ever fail to arrest disturbance of the stomach or vomiting depending upon disordered stomach, especially where the element of fermentation is present. I give you this for what it is worth. I do not rely upon this remedy solely, but certainly think that it becomes an indispensable requisite in the successful treatment of all diseases partaking of the nature of cholera.

DISCUSSION.

DR. C. A. THOMPSON had had considerable experience in the same epidemic. Had used the hypodermic method of medication, but thought that the *will power* had a decided influence for good in the course of the disease.

DR. J. H. STRINGFELLOW was convinced as to the origin of cholera. thirty years ago had much experience in St. Louis, when 7,000 died. The treatment was empirical entirely. Had no idea then what cholera was, or the method of cure, but now was convinced that the cause was a germ. From his experience in a thousand cases he observed that there was always a preliminary stage preceding the cramps and diarrhœa, when remedies were potent. Mercury was a germicide. Large doses of calomel gave good results. The bi-chloride was a prophylactic. In the preliminary stage small doses of the bi-chloride or some other preparation of mercury morning and evening would be effective. Thought it was reasonable to believe so, for at that time any germicide or antiseptic would be appropriate.

DR. E. R. LEWIS knew that such remedies had no time to act. Medicines had no curative power after the symptoms had developed. Alteratives to do good must be given in the very earliest stages.

DR. HUGHES.—In Naples the injection of tannic acid into the colon was found to be the best remedy, for that acid destroyed the mobility of the comma bacillus. There is a stage of the disease when germicidal treatment may be effective, but as a rule it is too late when we are called. Preventive methods are the most reasonable. Thought that the vasomotor system was at fault, and it was then that the power of absorption and assimilation of remedies was destroyed. The only hope was in the hypodermic method.

DR. HANNA recommended highly the hypodermic method. Thought that the internal administration of medicine was useless. Thought there was much nonsense concerning the germ theory and the idea of the germicidal treatment. The germs found in the intestines are the result and not the cause of the disease.

DR. HUNT did not know the real cause of cholera, but thought it

Digitized by Google

proper that we should investigate the disease. Recommended to put all persons during an epidemic under the influence of germicides.

DR. FISCHEL.—No theory generally accepted as a cause. Comma bacillus found in the intestines in other complaints not cholera. In Spain they have inoculated with cholera germs with a result similar to vaccination. Personally he has had no experience, but thought that others deserved the credit of such treatment. He thought that doses of medicine sufficiently powerful to kill germs would endanger the life of the patient. Remarked that the late Dr. Hodgen had had excellent results in this disease with the hypodermic injection of the sulphate of atropia.

DR. PREWITT thought that although the germ theory was true, or nearly so, no prescribed treatment was effective to control the disease. If we could prevent the collapse thought we could save many patients, and for this purpose would use the hypodermic injection of morphine. The effect of the cholera poison was to paralyze the vaso-motor nervous system and cause shock. Morphine in combination with atropia prevents the depressing influence on the heart and supports the nervous system. In this way we can hope to prevent the collapse.

DR. HEDDENS thought that the germ theory of the disease was not by any means established. His experience in cholera led him to believe that the nervous system was at fault. More people died from fright than from the disease. There was no specific treatment. Agreed with Dr. Prewitt respecting the use of opium. In great epidemics suggested encouraging the people, and cultivation of the will power.

DR. BRENT called attention to the germ theory. Thought that these germs lived upon an albuminoid substance, and suggested that any remedy that would coagulate it would be effective to destroy such low forms of matter. Severe and potent remedies were not indicated; medicines can be more effective in mild solutions and small doses.

DR. WILSON thought that certain forms of fungi live on dead tissue, and have no effect on living matter, although these fungi can influence live tissue, if such tissue has lost its power of resistance. To overcome the tendency to a loss of vitality, suggested hypodermic injections of morphine and strychnine. Thought that carbolic acid in the early stages was good, but was convinced that small doses of calomel would give the best results.

DR. SLOAN.—Medicines are only effective in the early stages. Thought that hypodermic injection was the most reasonable method of medication. Had found that during the first days of an epidemic medicines were powerless, but later on the type of the disease changes, becomes milder. Then were drugs effective. Had observed this peculiarity of a change in type in 1864. At that time enormous doses of calomel were given. Patients got well through a natural tendency to recovery.

Digitized by Google

TYPHOID OR ENTERIC FEVER.

By B. F. Wilson, M. D., Salisbury, Mo.

WHATEVER may be the cause of typhoid fever, it is clearly evident that the virus of typhoid is peculiarly obnoxious to nutrition, especially involving the subsidiary or reserve circulation, the lymphatic system, thus essentially tending to a localization in the glandular apparatus of the digestive tract.

The gravity of any given case of typhoid fever may be due to causes other than the virus itself. Constitution etc., may so modify or resist the toxemia as to prevent the occurrence of the local lesion, or vitality may be so utterly at fault as to portend death as an almost inevitable result; hence the fallacy of statistics as generally given without due regard to all the essential conditions. In illustration of this we may instance the walking typhoid patient in contrast with a typical case. Why in the one case is the patient able to be on foot throughout the whole course of the disease, complaining of headache and debility as the only evidence of the zymotic struggle that is going on within, whilst the other is placed *hors du combat* at the very outset? Both patients have been subjected to the action of the same virus, and the zymotic process is identical in all cases, and what but the difference in the make up of constitution and the widely varying conditions of the system at the inception can cause the marked contrast in the manifestation of morbid phenomena? In this contrast we have a full explanation of the reputed success of so many different methods of treatment, and it justifies us in stating that many a fever-tossed mariner comes safely into port although pelted promiscuously with murderous missiles. It is a grave error to predicate a treatment upon the hypothesis that the reduction of the preternatural heat is the great desideratum. Thermal elevation is an essential factor, a constant concomitant of zymosis. If it were possible to abstract the abnormal heat or "put out the fire" it would only be a suspension of hostilities, an uncertain truce of hibernation; the

Digitized by Google

disease would thus only with lessened pace "drag its slow length along," but Banquo's ghost "would never down" till the zymotic process once inaugurated culminated in a vital modification of every ultimate tissue so profound as to secure, as a rule, immunity from recurrence. In the zymotic process, as in variola, scarlatina, typhoid, etc., the evolution of preternatural heat is an absolute essential. It is paradoxical to state that we may have typhoid fever minus the fever—thus to reason we would be abundantly justified in the abstraction of heat, even resorting to the ice-box to expel the intrusive but deadly foe. But to hold thus is but another guise of the once popular but now exploded abortive plan of treatment. The evolution of heat is incidental to all the vital activities of the animal organism, whether normal or beleaguered by disease. Increase of function normally, augments tissue change attended by an explosion of energy, resulting in the production of heat; but, however intense the functional activity of the body, it never increases the temperature above the normal more than one degree centigrade, and hence where the physiological boundaries are passed additional increments of heat are superadded in the manifestation of pathological phenomena.

In typhoid fever the system is impregnated with a specific virus enkindling a morbid process that is self limited—self limited because it is a constitutional infection, and hence through the medium of the circulation every elementary tissue must of necessity have its vital activity impressed and modified by the *materies morbi* before the cycle of zymosis can be completed, and when the zymotic process has once set in it is plainly manifest that, it is impossible to arrest its progress till every tissue element has been subjected to the action of the special poison, and it is this action of the poison upon the system that develops pathological oxidation, resulting in preternatural thermal conditions, and through *abnormal oxidation alone* can the system free itself from the uninvited guest. Death may impend from functional nervous disturbance, eventuating in the dethronement of the inhibitory thermotoxic nervous mechanism, thus practically surrendering the vital forces to the morbid process, permitting oxidation to run unchecked beyond normal limits.

There is no known therapeutic agent that can depress bodily

Digitized by Google

temperature, although it is claimed that alcohol is a depressant, whether used in physiological or pathological conditions. Alcohol when given in pathological conditions does not depress or lower an already existing high temperature, but as it is life itself to the empoisoned system it prevents undue oxidation by restoring to the tottering nervous system its wonted control over the thermogenic tissues.

Alcohol, opium and quinine inhibit the thermotoxic forces, thus restraining and regulating the production of heat, but in nowise acting as depressants. The application of cold does not abstract heat, for after a time the conductivity of the skin is so lessened that instead of abstracting the heat it defeats its own purpose by having the opposite effect, viz., the retention and accumulation of heat causing internal congestions frequently resulting in hemorrhages—the *dernier ressort* of nature to counteract harmful treatment. Putting out the fire with water may answer the purpose in a burning building, but not so in the animal frame beset by a zymosis—in the one case combustion is destruction but in the other, as "a little leaven leaveneth the whole lump," so the combustion is but the pathological expression of a specific fermentation of living animal tissue. As high temperature is destructive to digestion, it is vastly more important to endeavor to anticipate high thermal conditions than to attempt the highly problematical reduction when once established.

To obviate the tendency to localization is to obviate the tendency to death, as the functional disturbance precedes the local lesion, but localization never occurs to any serious extent if elimination keeps pace with the morbid process. Food is of the first importance throughout the whole course of the disease to support the economy and maintain the integrity of the nervous system, and thus prevent the accession of a lethal bodily temperature, but alimentation is not only futile but absolutely detrimental when the temperature exceeds forty degrees centigrade, as digestion cannot take place when this point of elevation is reached.

Special treatment should be directed to meet indications only as they arise. Calomel in a sedative dose at the outset in some cases—in others none; if the kidneys respond well no diuretics

Digitized by Google

—no constipation, no laxatives or cathartics; no diarrhea, no astringents. Quinine for much daily variation of temperature. Alcohol and opium for persistent elevation of temperature when it exceeds 102° F. in the morning and 103° F. in the evening.

ASYLUM TREATMENT OF THE INSANE.

By G. C. Catlett, M. D., St. Joseph, Mo.

In complying with the duty assigned the committee to present a report on psychological medicine, the subject of the asylum treatment of the insane has been selected, both on account of its appropriateness to the occasion and its intrinsic importance,

It ever has been, and is yet to some extent, the common belief of civilized nations, and the universal belief of uncivilized nations, that insanity is caused by the influence of immaterial instrumentalities represented by their superstitious conceptions of the functions and operations of the soul or of spirits or of immortal beings some way associated with our mortal bodies. The teachings of science, as well as clinical evidence, by no means corroborates this view of the immaterial dependency or origin of either sound or unsound mental manifestations, but, on the contrary, science instructs us that all mental manifestations are energies or forces evolved by or originate as the result of the functional activity of the cells of the gray nervous matter of the brain, and perhaps also of the other similarly constituted nervous ganglia wherever located in the body. So also we are taught to refer all unsound or disordered mental manifestations to some defect, disease or perturbing condition of the perishable and sensitive elements of the body. In deference to scientific teaching and supplemental clinical evidence, corroborating the belief that mental diseases are of pathological genesis, this report in speaking of insanity will ignore the conception that disorders of the mind are of immaterial or spiritual origin, and therefore will speak of insane persons as we do of other diseased

Digitized by Google

persons, and so shall speak of the treatment of the insane and not the treatment of insanity. This view marks the similarity and logically corresponds with the teachings of the science and art of general medicine which administers remedial agents to the individual who is the subject of a malady, and not to the disorder afflicting the person. The theory of the genesis of mental disorders having been explained, the report relating to the treatment of the insane will harmonize with the scientific teachings of the pathology.

The phraseology "*The asylum treatment of the insane*" may convey an erroneous impression that such treatment differs from proper, wise and scientific treatment pursued by physicians in the treatment of persons afflicted with other diseases. No such impression is intended to be made by the use of the phraseology, as the objects sought to be attained by the administration of drugs or other agents are the same; whether administered to correct a physical disorder, expressed by cerebral disturbance, or by other organic and functional derangements. Asylums for the insane being generally constituted legal establishments for the treatment of the insane, are, by this official relationship, considered to possess superior facilities and methods of successfully treating the insane; not only so, but it is further believed asylum physicians have special and generally unknown methods of dealing with and treating the insane, which is the real cause of their success in the treatment. To correct any false impressions which may exist upon this subject, and with the hope of exciting increased interest in the profession to investigate it, the report will generalize the asylum treatment of the insane with the candor of scientific plainness.

Is it true that asylum physicians have exceptional knowledge, skill and success in the treatment of the insane, and that they are in the possession of such knowledge and skill to accomplish success in treatment as is not in the possession of the general physician?

Is it also true that asylums fulfill the high standard and expectations that public opinion and their legal status assigns to them as the best places for the treatment of the insane? The whole context of this report must embody the answer to these two propositions.

Digitized by Google

It is not anywhere claimed that the science of medicine is an exact science, nor can any such claim be better maintained for any of its special branches. The department of psychology may enter the contest for this distinction with equal, if not superior, probabilities of success with other branches of general medicine. Neither is it here claimed that alienists have superior knowledge and skill than is possessed by general physicians who have equal capacities and opportunities of acquiring knowledge and skill. It may, however, be within the bounds of truth to assert that, asylum alienists are as intelligent and are as enterprising in acquiring a knowledge of the science and art of medicine as the average general practitioner.

It is also fair to conclude that he is as honest and as diligent in the use of his knowledge and skill as the general physician. And as the claim to the possession of superior and special knowledge, and of secret, efficient remedies, are the expedients of ignorance and dishonesty, asylum physicians cannot be justly charged with such disreputable resorts. The alienist, like all other specialists and general practitioners, acquires the fundamental principles of the science of medicine from the same fountain of knowledge. The application of such knowledge to the treatment of disease, being guided by their conceptions of the teachings of science, as is supposed to be the rule with all physicians, the real difference between any specialist and a general physician in knowledge and skill, where a difference does exist, consists in the specialist concentrating his intellectual energies upon the acquisition of the attainable knowledge appertaining to his subject, which, being supplemented and tested by large clinical experience, which is the touchstone of all real knowledge, he is able to focalize the light of his knowledge upon the dim and obscure recesses of the subject, making it possible to more nearly attain a solution of the problems involved in the pathology, diagnosis and treatment of disease.

Admitting the current supposition to be true, that many more cures are affected by asylum treatment of the insane than in home or other places of treatment, it is not here asserted that the results obtained are due to the superior skill and knowledge of the asylum physicians intrusted with their treatment. I am

Digitized by Google

not unconscious that this statement will surprise the general physician, and subject me to criticisms from asylum alienists, but I am justified in the assumption from fair conclusions arrived at from the analysis of the reports of both American and European asylums relating to the ratio of recoveries to the number of the insane. There is so little difference in the reported ratio of recoveries in the various institutions that manifestly the methods of medication, by whomsoever applied, have but little to do with influencing the result so far as to increase or diminish the ratio of recoveries,

It is proper to assume that a majority of asylum physicians throughout Christendom are learned and skilled, and are competent to make a correct diagnosis, and to apply appropriate medication to the insane, and yet the number of recoveries are not materially modified by the different methods of treatment adopted by the various classes of physicians, however famous or obscure, however experienced or inexperienced, competent or incompetent. It is true that in certain instances reports of institutions will show a larger ratio of recoveries than other institutions report, or that the same institution will show at succeeding reports. The difference in success of treatment is not to be attributed to superior skill or methods of treatment, but to the class of insane persons incidentally subjected to treatment. In one case the increased number of recoveries resulted from the increased number of curable persons admitted, and in the other to the increase of incurable persons subjected to treatment.

If the evidence of such statistics are sufficiently reliable and extensive to base conclusions upon, we are brought face to face with the pertinent interrogatory whether our knowledge of therapeutics applied to the treatment of the insane is sufficient to warrant the conclusion that they are restored thereby. The possibility of therapeutics becoming an exact or an inexact science, associated as it is with the indeterminable relation of structure and function and of matter and energy, is not by any means encouraging; notwithstanding, it is not the intention to assert that the administration of medicines to diseased persons is not a useful and reliable means of antagonizing disordered and diseased conditions, and of arresting destructive processes, and aid-

Digitized by Google

ing the inherent forces of the organism to reassume normal functions and reconstruct organic lesions. The asylum treatment of the insane, as here reported, is intended to present in strong light the supplemental methods to the administration of drugs which are universally adopted in the treatment of the insane in asylums, and by which it is generally and correctly asserted that the best success is obtained whenever the insane are subjected to hospital treatment before the pathological condition causing the disorder is irreparable, or becomes chronic and unchangeable. If it is true that hospital appliances and methods of treatment influence a larger per cent of recoveries than home or other known methods of treatment, the question is suggested, "What are the characteristic methods, appliances and treatment of asylums upon which their success depends?"

Before proceeding to the consideration of hospital treatment of the insane it is proper to note for the present purpose only two classes of insane that are subjects of hospital accommodation: the curable and the incurable. The treatment of the curable will here be only considered. The latter class being subjects simply of custodial care may properly be left in the hands of the humanitarian and political economist, who will have an ample field for the exercise of their sympathies and wisdom.

A subdivision of the curable class may also be properly made to include those persons who are usually reported recovered, but who really represent a class of individuals whose mental activities are held in abeyance, and who tend neither to ascend nor to descend in the plane of mental life, and who appear to be inhibited from either physiological progression or pathological retrogression. While hospital treatment is of great benefit to this class, it is not necessary, in considering the value of hospital treatment in the curable class, to include the former. I do not regret that the time allotted to read reports is too limited for any but a generalization of the subject under consideration.

It is almost universally the case in all forms of insanity that the cerebral centres which preside over the purely intellectual faculties lose their inhibiting influence over the centres which preside over the emotions, the impulses and the instincts or lower senses; so that the subject of acute insanity is generally

Digitized by Google

left a prey to the surging waves of the emotions, passions and impulses. His reason is enshrouded, his moral senses are in abeyance, insubordination, intolerance and destructive inclination characterize his changed being. Such an insane person has lost all sense of moral restraint, and defies, also, all legal responsibility. He is passionate and vicious, suicidal or homicidal, contentious and belligerent, obscene and profane, or desperate and destructive, as the frequency and intensity of the recurring reflexes of exaggerated normal or abnormal sensations occur. These sensations operating upon the excited, unstable, impressible cerebral centres, they formulate the delusions which excite into activity the various motor and psychical manifestations above cited. The complications of social necessities, consequent upon the increase of population and the increase of insanity, created an imperative demand for places of restraint where the insane could be subjected to such necessary restraint as would be best calculated to aid in restoring them to health, to protect them from self mutilation and injury, and lastly, to insure the public safety.

Asylums, with all their appliances, methods and agents for the successful accomplishment of the above named objects, are the outgrowth of this demand. The present advanced successful asylum treatment of the insane had its origin, as has been seen, in the necessity of isolating them in places of safety. As restraint of the insane is an imperative necessity for their own safety, as well as for the security of the public, so it forms one of the essential means of restoration. By restraint, however, it is not intended to be understood that any single form of coercion of the body, by mechanical or other restraining means, or by all coercive means whatsoever of the body, is the only kind of restraint that is considered to possess such beneficial functions; mechanical restraints or coercive means when properly used are resorted to only when all the so-called moral influences have been ineffectually tried. The moral means used include every influence that can be made to operate upon the intellectual faculties, the purely moral nature, and the sympathies. Each and all of these attributes of man's organization, when wisely acted upon, are often efficient restraining and remedial agents. The

Digitized by Google

first mental effect that impresses the mind of the insane when he approaches the institution for admittance is both beneficial and, like most first impressions, very permanent.

The lawns surrounding the institution first attract his attention more or less pleasantly. The magnitude of the edifice, the imposing architectural designs, are suggestive to the insane of the importance of the objects intended to be accomplished by its construction and maintenance. These primary impressions become more deeply impressed upon him when admitted into the institution. The scenes composing the interior arrangements of the halls, offices and reception rooms are surprises to the understanding, and often have an effectual restraining influence both over the motor and mental manifestations. The official attitude of the officers in performing the duty of admitting the insane, the care and attention given to obtain a full history of the person attracts their attention; the quiet order that prevails, the very atmosphere of the business departments, the various arrangements of the same, the prompt execution of orders given to employes, the recognition of official authority, the impressions made by the officials, the impressions of new, strange and unanticipated surroundings, of new scenes, of new and strange persons and associates, are all alike restraining influences and make a lasting impression upon the insane, and often open the way for concessions to authority and to improved conduct. These restraining influences of first impressions often diminish the necessity for the use of coercive restraints as substitutes, either for the loss of the power of self control or the wilful refusal to exercise it. These are the inseparable qualities, inherent in the construction of asylums associated with their various surroundings, which exert upon a large per cent of the insane who are brought within their control such ameliorating influences.

There are other provided restraints that constitute efficient agents in asylum treatment of the insane. They may be classed as mechanical, moral and chemical or preferably medicinal.

Mechanical restraints may be defined to be any applied force or devised appliance that is calculated to limit or suspend bodily motions. Such as are generally used consist of strong rooms,

Digitized by Google

locked chairs, protective beds, muffs, mittens, wristlets, belts and the hands of nurses. This is rather a frightful list of coercive instruments and appliances for the restraining treatment of the insane; but far more formidable the thought to the prospective sick man is the view of the number of bottles and jars containing the variety of drugs that compose the dispenser's stock, or of the surgeon's formidable collection of instruments which are used in the various operations of surgery. But, fortunately for the afflicted, all of the drugs or the surgical instruments are not indicated, nor can be used in any individual case of disease, but such agents in each condition are selected as may best accomplish the indications for treatment.

The various agents used in the treatment of the insane, like the medicinal and surgical remedies, must be left entirely to the judgment of the physician and surgeon—either may be made the means of salvation or destruction, as they are scientifically and wisely, or ignorantly and unwisely, used. It is therefore as inhuman and unwise to condemn and prohibit the use of medicines and surgical instruments in our efforts to cure disease. because remedies may be improperly used, as it is to indiscriminately condemn and prohibit the use of restraints in the treatment of insanity for like reasons.

Pursue this not restraint idea to its logical sequence and the locks on asylum doors would be removed. The doors themselves would be unnecessary restraint, even the necessary rules of propriety and decorum that constitutes and harmonizes social intercourse of the sane would be considered improper restraint of the insane, however savage or docile his humor. This idea would restrain the nurses and guardians instead of the insane, yea, even put weapons in the hands of the insane to commit suicide and homicide, and lastly, would demolish the asylums, and, like the savage people of the past and present age who believe in the supernatural infliction of the insane, who are thereby entitled to unlimited freedom to do good or evil, as their inspiration dictates. The use of mechanical restraints in the treatment of the insane has had advocates and opponents coeval with their use. Their opponents have so far failed to show an equal number of recoveries as the result of any other mode of treatment

Digitized by Google

which excludes mechanical restraints. Nor do they pretend that the complications of treatment are diminished, or the dangers of self-mutilation, suicide and homicide are not increased. Pseudo alienists and philanthropists who believe it to be their mission to espouse the cause of protecting the rights of the insane, though acting under the impulse of sentiment which is seldom the unerring path to avoid error, have been the means of inducing more discriminating use of restraints, just as the Hahnemann delusion has contributed to limit the use of drugs to a nearer approach to physiological uses.

The problem of the remedial uses of mechanical restraint in the treatment of the insane is by no means a simple one, and cannot be determined by any investigation of the subject originating in sentiment, nor by the limited knowledge of the insane possessed by pseudo scientists or by philanthropists. The environments constituting its complexity are conditions requiring not only profound scientific knowledge, but such wisdom as cultivated experience alone furnishes for its solution. The use of mechanical restraints may be considered as a protective measure against self-injury and destruction, and as a security to the lives and rights of the sane, but the most important use restraints subserve are as remedial agents.

In acute mania the cerebral cells are subcharged with unstable, excitable elements. The intensified effect of each sensation, impression and impulse is transmitted to the hyperesthetic cerebral cells, which respond to the excitation with increased alacrity, largely increasing the evolution of the motor and psychical activities.

In these acute maniacal states all the high intellectual expressions are inhibited by exalted sensory and emotional activities, so that the individual, being deprived of the use of his perceptive and reasoning capabilities, becomes a dangerous and desperate lunatic, in obedience to the domination of his impulses. In such cases some one of the mechanical restraints—the gloves, wristlets, or camisole—may become a valuable and indispensable agent in controlling muscular motion and conserving the vital forces, in limiting psychical excitement and preventing mental exhaustion, and in diverting cerebral, structural and vascular

Digitized by Google

lessions. In acute mania also restraints are often indispensable as a means of self-protection againt mutilation and suicide, and as a protection to the person and lives of the guardian and nurses, and also to prevent the destruction of property. The restraint chair likewise is an invaluable mechanism to protect the insane from self-injury, where their impulse to self destruction is irresistible. It prevents precipitating their bodies upon the floors, their heads against the walls of the rooms, in truth the chair prevents suicide by any of the accidentally attainable means that it is impossible always to keep out of the possession of the determined and destructive insane. The chair is also a valuable remedial agent in restraining exhausting bodily exertion and motions, thus conserving both the motor and the psychical vital forces. It is absolutely necessary to the safety of the patient where feeding by the œsophageal or nasal tube becomes necessary. The restraint exerted by the restraint chair better subserves a number of indications than any other form of restraint. It immediately convinces the restrained that escape from it is impossible; he then ceases to make exhausting efforts to escape and sits in a strength conserving natural attitude without restraint upon any motion of the body except locomotion and standing erect. The strong or seclusion room is simply a room without furniture, the walls of which are sometimes padded. It is useful in the treatment of the violent and boisterous and demonstrative insane who are made more irritable by the presence of other disturbed and annoying patients, and when isolation tends to quiet mental excitement and limit excessive voluntary muscular motion. The protection or restraint bed is a means of more complete restraint to the whole body without restraining the limbs. It is adapted to cases in which it is necessary to limit the motions of the body, and when it is desirable to retain the individual in the recumbent position. The construction of this bed, as well as its uses, has been greatly misunderstood, and is greatly misrepresented, sometimes ignorantly and unintentionally misrepresented, but, more often, designedly so in a perverted, sensational, dishonest spirit. The bed is constructed like a child's crib, sufficiently large and comfortable for an adult to occupy in any position that is most comfortable. It has an

Digitized by Google

adjustable cover or top which admits of free motion of the entire body and the various motions of all the limbs. Its construction admits of free ventilation and light. In the writer's opinion it is superior to all other forms of restraint for many purposes in the treatment of the curable insane for the following reasons: it is not oppressive to the body or limbs and is not, therefore, irritating to the body or mind. It admits of ample and varied motions of the body and limbs to relieve the fatigue of prolonged repose in one attitude. It prevents the occupant from maintaining the standing position, from exposing himself to the changes of temperature, and it conserves the vital forces and thus prevents the initiation of retrograde processes. It overcomes the spirit of resistance, and to impulses of muscular exertion, and induces, by these quieting and pacific influences, an inclination to physical repose and mental calmness precedent to natural sleep, "Nature's restorer."

A superior agent has yet to be appropriated in the treatment of the insane that will equal the restraint bed in fulfilling the various dynamical and physiological indications that must be met in the treatment of the violent insane. This report may now properly consider the theory and reasons for the use of mechanical restraint as a curative measure separate and apart from their prospective usefulness.

Mechanical restrains, like other remedial means when used in the sense of physiological remedies, must assume the attitude of medicinal agents, in so far as they have any influence in aiding physiological functions or controlliug pathological processes. Therefore the determining influence of restraints over physiological and pathological processes must depend, like the administration of drugs, upon the inherent virtues they possess, and also upon the wise and scientific adaptation of each agent to the abnormal state capable of restoration to healthy functions and structure. It is conceded that the full powers of the medicinal, chemical and dynamical agents over functional activities and structural capabilities is both unknown and unascertainable. Notwithstanding these doubtful problems involving the system of therapy, there are sound physiological reasons to guide the prescriber of restraints in the treatment of the insane. A phys-

Digitized by Google

iological indication to be fulfilled by proper restraint of the insane is the partial or complete control of excessive exhausting, voluntary, muscular action, thus diminishing the frequency and force of the heart's action, which directly diminishes also the quantity of blood circulating in the cerebrum. This increased quantity and changed quality of blood being the basis and support of the cerebro vascular repletion and of the physical excitation, limiting the supply of blood circulating in the cerebral vessels, greatly diminishes the probabilities of hyperemia, congestion and the accidents of miliary and other apoplexies and extravasations which are the result of continued high thermal states and of prolonged, increased vascular tension. Restraining and limiting the motor activities conserves the vital forces by substituting rest and inactivity for abnormal restlessness and excessive activity. This induced repose of functional activities and structural vital processes resembles the physiological repose of voluntary activities and of functional actions accompanying normal sleep universally known to be eminently conservative and restorative of structure and function.

If the limits of this report permitted, a further profitable elaboration of this subject could be made, but perhaps sufficient has been reported to indicate that the practice is in conformity to scientific teachings, and in harmony with physiological functions, and is antagonistical to pathologieal processes. Clinical experience certainly not only justifies the practice but endorses its continuance as the treatment that offers the greatest probabilities of successful results.

We may now proceed to consider the moral treatment of the insane. It is not intended to convey the impression by the term moral treatment that ethical instruction is given with the object of impressing a knowledge of a proper conception of the principles that should govern man's conduct; on the contrary, the term is intended to include any salutary restorative influence that can be exerted through any of the senses or other paths leading to the intellect as a whole, or to any one of the faculties, either of a purely intellectual nature, or of the so-called moral nature, or of both combined. I am prepared to admit that there is a grain of truth in the common belief that the insane can be

Digitized by Google

to some extent controlled and influenced by the mental or will power of sane persons. This at least has been my clinical experience. Common assertion claims for the possession of this power the capacity to exert a controlling influence over both the minds of the sane and the insane to be a special gift of creative beneficence. This is wholly a superstition, notwithstanding the examples of the powers of men to control and tame ferocious wild animals and the personal prowess of military chieftains is adduced to confirm their assertions. I cannot undertake to analyze the psychical states of either the persons who possess the mental power to exert a controlling influence over other persons, sane or insane, nor of the persons susceptible of such influence. Why was it, for instance, that General Andrew Jackson, before his renown as a warrior, could descend from his seat as judge, walk out into the court yard and seize a desperado who had taken his position upon a stump with pistol and bowie knife in each hand, and who had successfully defied the sheriff and large posse, is an interesting psychological problem, which, if solved, would illustrate the question under consideration. I know of no explanation except to admit that every intellect has the capacity to perceive in the attitude and expressions of a person the stronger the determining will power of a superior intellect when brought in antagonism to his own, and thus involuntarily yields to the dominating will. The feebleness and instability of the insane intellect is characteristic, and whenever they are not demented they are more readily influenced by impressions made upon their minds, through the various avenues to its approach, than are other persons.

It may, therefore, be observed that much depends upon the skill and tact of the physician to determine and touch skillfully the cords of the intellect whose vibrations will elicit no discordant sounds, but will yield the harmonious notes of confiding complaisance. The influence that the alienist obtains over the minds and sentiments of the insane is frequently as great and durable as that manifested so often over the sane by their medical advisors. Much good may be accomplished for the insane by the wise exercise of the various moral and intellectual influences. The insane are pre-eminently impressible and are influ-

Digitized by Google

enced by sympathy and kindness, and often the exhibition of sympathy is the opening way to successful treatment. Moral treatment also contemplates the influence of hope, it seeks to inspire hope and to dispel despair. It appeals also to the influence of rewards and discipline to be dispensed in conformity to the indications of the benefit that either might effect. In my judgment, no circumstance justifies any but sincere dealing with the insane; when it is not best thus to act and converse let silence and inaction govern. The various amusements, church services, music, mental occupation of reading and writing and other employments that combine intellectual and physical exercise, have long been considered efficient aids in the successful treatment of the insane, and blessings to the class where only limited mental capabilities exist. It may be well in passing to remark that in the fixed delusional insane, efforts to benefit them by operating upon their intellectual faculties rarely is successful. Delusions have a centric origin which constitutes in the insane the orbit of all intellectual activities. Therefore, no extraneous impressions can be made upon the delusional insane which will for any length of time change the current of their thoughts from the circuit and dominion of their orbit.

The use of drugs in the treatment of the insane will now claim only a general consideration. The administration of medicines to the insane, for the purpose of restraint or to control their mental and motor activities, constitutes the only difference in the objects of the administration of medicines from the object of the use of medicines in the treatment of any other form of disease. When medicines have been used to restrain the morbid activities of the insane they have been, I think, improperly termed chemical restraints. The medical treatment of other diseases could with as much propriety be termed chemical treatment. Any substance when ingested that has the influence to inhibit, alter or suspend the sensory motor functions is to the extent of its action in this direction a restraining substance. How they elect the direction of their action upon any special function and how they influence psychological and pathological processes is not known, but ample evidence establishes the power of many drugs both to stimulate and paralyze the motor and sensory organs.

Digitized by Google

The medicines mostly used for that purpose by asylum physicians are the narcotics, hypnotics and stimulants. The most efficient of these are opium, chloral, hyoscyamus, conium, cannabis indica, bromides and alcohol. When given to conserve vital energies by limiting motor and sensory activities the quantity administered should be sufficient to control the morbid activities. If given in insufficient quantities they increase rather than diminish the excessive abnormal action and even increase irritability. The conditions requiring the administration of this class of drugs are relapsing, violent and destructive paroxyms of mania, accompanied by intolerable and exhausting vociferations, incessant voluntary motion, insomnia and somnambulistic states. As a simple paralyzer of muscular action hyoscyamus or conium have no equals, but administered in safe physiological doses they do not combine with this action the desired hypnotic effect. Opium and its preparations are the only drugs the writer is familiar with that can be relied upon to inhibit abnormal activities and safely induced hypnotism. It is largely relied upon by asylum physicians when these two effects are desired. Hydrate of chloral is preferable to all other medicines in uncomplicated insomnia. Chloral, however, if long continued, induces cerebral and spinal anæmia and increased sensitiveness and irritability and feebleness of will power. The bromides are not hypnotics except so far as they tend to soothe the abnormal sensitive cerebral and spinal ganglia, in this manner in combination with opium, chloral and other positive hypnotics bromides, increase their efficiency. The bromides have been considered defibrinators and depressants when their use is long continued, but a discriminating analysis of clinical evidence as presented in epilepsy and other diseases where they have been persistently used in larger doses will create a doubt in the belief of the deteriorating effects of the bromides. Alcohol acts like opium in so far as it is first a stimulant then a hypnotic, and when taken in large doses is an efficient paralyzer of psychical and motor energies. In enfeebled and impoverished cerebro spinal states, it stimulates the circulation and aids in re-establishing nutrient processes. It is a valuable remedy when limited to its physiological therapeutic uses. It accomplishes certain restraining in-

Digitized by Google

dications in constructive and destructive activities that no other agent can accomplish.

The object of the administration of drugs, and the use of other remedial agents for the purpose of effecting a return from abnormal mental states to normal states, as before stated, does not differ in theory or practice from the objects sought to be attained in the administration of remedies for the relief of other diseases. In both instances there are two chief purposes to accomplish: to arrest diseased and destructive processes, and to assist in re-establishing healthy functions and structures. The purpose of vital forces, when acting in physiological directions, is to maintain normal function and to conserve organic elementary structure. The forces which direct pathological courses tend to subvert physiological purposes, and the expression of pathological domination may in the one case be manifested by functional or organic derangement of the liver or lungs, or in the other case by disease of the cerebral tissue, or by mental derangement. The principles of treatment in either disordered manifestation is the same, which may briefly be stated to be to supplement with artificial aid the vital forces to re-establish healthy function and structure and also to antagonize with constructive agents pathological processes, tending and progressing to disintegration and dissolution. It is without the limits of the report to dwell on the special application of drugs to the treatment of the insane. The psychieter's special efforts are directed to the purpose of removing the remote and immediate causes which restrain the organs from performing their functions and which originate pathogenic, functional and organic changes.

Therefore it is that a searching investigation of the causes determining the disordered mental state is first entered into, on the admission of the person. An influential remote cause that often determines functional mental disturbance and also organic disease is that influence called hereditary, which Ribo defines to be that biological law by which all beings endowed with life tend to repeat themselves in their descendants.

The exact quantity and quality of this influence or potentiality is unknown, and must ever remain so; therefore, efforts to oppose

Digitized by Google

the operation of this generally accepted influential cause of insanity must continue to be inefficient, yet the knowledge of its existence may determine the prognosis and influence the treatment. Innate structural incompetency and imperfections of elementary structures rendering the individual inherently incapable of sustaining the conflict of life is a remote factor which cannot be ignored, and which may be removed by limiting the activities of life within the structural and functional capabilities. Also by increasing the vital powers and developing structural elements by means of proper nutrition and increasing the capacity for the consumption of constructive elements. The immediate factors in producing functional derangements and organic disease for the present purpose may be termed toxic, and the agents used to combat their influence upon the system and to further arrest disordered processes and restore physiological dominion may be classed as external and internal agents. Water as an external remedial agent is highly prized by asylum physicians, and so is the hot air bath as applied by the Turkish and Russian baths. He who does not know and value the uses of water possibly can be a Christian, but it is impossible for him to be a clean one. The Romans and other nations may have induced enfeebling and luxurious and even immoral customs, by establishing and improper use of public baths, but I question whether if the quantity and quality of the evil could be estimated that their misuse of baths created, it would compare with the injury produced by contagious and infectious diseases caused by the neglect of the use of water by the people of this age.

The profession are culpable for not educating the people in the inestimable virtues of water, medicated and simple, used by bathing. There is no substitute for the detergent, depurating, deobstruent, invigorating bath, without the use of which persons cannot maintain health or be properly or successfully treated for disease. More than this, the individual who neglects its proper use can never attain to the physical, mental or moral perfection of his capabilities. The dormant state of the secretory and excretory organs, especially of the skin in the insane, demands the use of baths to a much greater extent than is necessary in the

Digitized by Google

sane. In addition to its use for its detergent effect no remedy is often so efficient in calming the excited nerves and in inducing sleep in the maniacal, in acute and chronic melancholia especially, as well as in other forms of insanity, as a prolonged hot bath, with or without cold effusions to the head.

The Russian and Turkish baths are especially serviceable in acute and chronic melancholia, and in other forms of insanity where the emunctory organs are inactive, when the liver, kidneys and other large glands are laboring under nervous or other inhibiting influences, and where the cutaneous organs are inactive, the skin is cold and clammy, and where exercise and motion does not increase its warmth and vitality. Many such cases will improve rapidly and make satisfactory recoveries with appropriate medicinal treatment and the frequent use of these hot air and water baths.

The unlimited inhalation of pure fresh air, and the frequent exposure of the entire person to the influence of the sun (nature's restorative elements, which art has no substitute for), are reliable means of cure. The various muscular movements necessary in exercising the entire body within physiological limits are reliable means of increasing the nutritive capacities, and imparting energy to the motor and psychical powers. The mental exercise attendant upon the various employments, when suitably adapted to the individual, is notably restorative. The same object is aided by the use of the many and varied amusements in common asylum use. Any substance administered in the treatment of a disease is a remedy or a medicine; therefore, medicines are not confined to substances know as drugs. The abnormal physical conditions of which mental derangement may be a resultant manifestation are various and numerous. They are conditions associated either with constructive or destructive processes or tendencies. It is important as a guide to treatment and prognosis that the two conditions should be differentiated. The former condition always precedes the latter, and unless arrested terminates in it, and thus the two conditions may exist at the same time in the same person. The constructive processes embrace all the disorders dependent upon derangement of digestion, assimilation, and nutrition by which the balance between

Digitized by Google

the nutritive elements structure and function is disturbed. The typical destructive process embraces the cachexies, cancers, syphilis, tuberculosis and other degenerations and inflammations. These several conditions indicate their proper treatment, which does not differ in the insane from the treatment of other persons with like cachexies resulting in other derangements.

The remedies indicated in correcting constructive diseases are chiefly depurators and nutrients, and those indicated in the treatment of destructive processes are especially as alteratives supplemented by tonics and stimulants. When these two conditions co-exist in the same person, a combination of the two classes of remedies is indicated. The depurating medicines excite the emunctory organs to increased functional activity, which is essentially necessary to the removal of the effete materials of assimilation and disintegration. The alienist neglects no remedy of this class to restore functional activity to all the depurating glands, especially the kidneys, liver and the intestinal and cutaneous glands. After the system has been depurated of the retained effete materials, nutritious substances are the proper and, in truth, the only agents to assist the vital forces in the restoration of constructive processes. Drugs are in no sense nutrients, but food is a remedial agent when administered in the treatment of disease.

In these conditions the asylum alienist administers food in such quantity and quality that will most surely nourish the entire organism. It is one of the frequent occurrences in inassimilation that the organism is not uniformly well nourished, one organ being sufficiently nourished, while others are defectively nourished. Alienists in consequence of this state of nutrition resort to a variety of nutrient foods to meet these peculiarities of inassimilation. It appears to the writer that sometimes the organs are possessed with perceptive powers which enables them to select such elements of nutrition as is best adapted to their structures and wants. All physicians should study food as a remedial agent. They should not only understand its elementary constitution and chemical construction, but should be familiar with its vito-chemical relations, and its various physiological and pathological adaptabilities. The physician, therefore,

Digitized by Google

who would excel in therapeutic skill must not only know what to cook but how to cook. The various stimulants, alcohol, coffee, tea, cocoa and the spices may not be efficiently nutrients, but they promote nutrition by increasing functional activities and are, therefore, valuable remedial agents. It is proper to note that asylum physicians also prescribe many, if not all, of the drugs that are supposed to sustain, strengthen and even to nourish the organism. Among these may be mentioned quinine, iron and its preparations, the bitter tonics, phosphorus and its many compounds; all and many more are used to meet certain indications, but apart from their stimulating effect not one of them can sustain their reputation as nutrients. Electricity may also be classed as a valuable stimulating remedial agent.

The remedies indicated and chiefly used in the treatment of the destructive or disintegrating processes which are caused by the cachexies are the alteratives, deobstruents and tonics. The mercurial preparations, iodine and its potasic and ferric combinations stand at the head of this class, and do not disappoint the prescriber when wisely used. These and other alteratives are efficient eliminatives administered conjointly with evacuants. They increase the functional activities of the emunctories and the evacuants eliminate the excretions from the system. Many other eliminating drugs are prescribed which have supposed elective affinities for certain organs. The list of tonics far surpasses in number and supposed virtues all other remedial agents, and it is fortunate for the prescriber that it is so large, as he needs the almost endless variety to draw upon in his emergency to find one that will sustain his efforts to support and strengthen the feeble. A few of the ferric and the arsenical preparations, quinine, the bitter tonics, and the preparation of phosphorus complete the list of drugs which apparently are beneficial in destructive processes. The asylum alienist properly estimating the importance of classification of the insane as an aid to successful treatment, endeavors to make accurate diagnoses of cases when admitted so that the person can be assigned to the department where other inmates reside whose form of insanity and whose conduct is least calculated to make unfavorable impressions, and to retard the recovery of associates. The effect of

Digitized by Google

the intimate daily association of the insane upon each other as they are now maintained in all asylums is an unsettled question with alienists, and the general physician coincides with the public in the feeling of fear and incredulity at even the possibility of beneficial treatment being attainable under such forced intimate association of the insane. It must be admitted that the subject is environed with difficulties. My experience leads me to the conclusion that in exceptional and rare instances curable cases are injured and their recovery retarded by being associated with the insane, but I do not remember a single instance in which I thought such association prevented ultimate recovery. I think I have seen instances in which the impressions made by such association influenced constituted the initiatory steps which led to recovery. There are two explanations, in my opinion, why association of the insane has not the retarding and obstructing effect upon recovery that is generally attributed to it.

First, insanity is an expression only of functional and organic disorder. Remove the disorder upon which the insanity depends and the return to mental soundness is secured. Therefore, the teachings of science hardly prepares our minds to admit that the immaterial influences of association are capable of creating any changes in function or structure. Secondly, the insane generally are peculiarly incapable of exercising that rarely well developed faculty, even in the sane, of introspection or of analyzing their own internal states. It is, therefore, the exception, when the insane recognize their own disordered state. Many who are incapable of conceiving their own mental delusions are capable of determining, with more or less accuracy, the disordered intellect in their associates. This peculiarity may be preventive of injurious influences, asserted to be the effect of the association of the insane. No matter how near the truth this explanation may be, wise classification of the curable insane in asylums secures whatever benefits there may be, and limits whatever evils are asserted to be produced by indiscriminate association.

Some forms of insanity also have certain tolerably uniform affiliations with physical disordered states which have been observed, and may indicate and direct the diagnosis and treatment. Derangements of the function of the liver has uniformly been

Digitized by Google

associated with hypochondriacal and melancholic mental states. The two conditions have for ages been associated together, and the hepatic derangement has likewise for ages been charged with producing the mental condition. Again, who has not observed the effect of depressing emotions to weaken the constitution and engender hematic changes resulting in dangerous anemia. It is not an uncommon observatiou that "care and grief make the cheek grow pale" and gnaw at our life and health daily. Clinical experience establishes the effect of depressing emotions in producing anemia, but still we are ignorant of the way in which they act upon blood, whether by interfering with sanguification or by increased consumption of its elements. Alienists carefully examine into the history of the insane, they try to obtain a correct and complete pedigree of the disease, as Mr. Jonithan Hutchison appropriately designates the history of disease.

Alienists more than the general physician recognize the influence of inherited predisposition to disease, and also the proclivities of inherited physical peculiarities and mental eccentricities. The constant clinical confirmation of the above assertion conforms to a general physiological law of genesis that the more complex and highly organized the structure, the more certainly will the vital forces prove faithful to their office of reproduction or perpetuation of exact resemblances both of structure and of function. This law of genesis is constantly observed in the descent of intellectual force and direction, and of nervous activities not only to one generation, but through many generations. Did the limits of this report permit, it would be interesting and instructive to trace the descent of the temperaments and idiosyncrasies, and their legitimate or accidental influence upon pathological conditions of nervous structure and function.

The alienist with educated perception of such influences observes in the individual accumulated activities of descent in the phlegmatic temperament, with its tendency to the accumulation and deposit of fat, and with the increased liabilities to certain diseases. He sees also in the sanguine temperament the excessive activity of the circulation and the large and active digestive capabilities which likewise determine pathological states. Eccentricities are more potent inherited properties than the former,

Digitized by Google

and convey with them more potent forces, and, therefore, more certainly determined abnormal states of structure and function, and, therefore, must always constitute an important factor in the diagnosis, prognosis and treatment. The subject of diathesis, or the bodily conditions that pre-disposited, is one of two diseases, of too great interest to pass entirely without notice. Diathesis may come by descent from ancestry or may be contracted. In either case it is the existing proclivity to disease that interests the physician. It is asserted by eminent pathologists that all persons inherit constitutions or conditions of the system that constitute a diathesis, which gives them a proclivity to diseases of descent. If time permitted numerous examples of disease manifestations could be traced back for many generations, showing the great importance of searching back for the pedigree of disease. The effect of diathesis, however induced, is to enfeeble the organic and functional powers and to lower the tone of the vital forces. It thus becomes a most important subject of consideration to the alienist. If the nervous tone is low the power of endowing energy will be correspondingly diminished, and the capacity to arrest irritation and disturbing influences will also be limited. Nervous energy depends upon the nutrition of the nerve cells, when the nervous system fails to regulate the supply of blood to various parts and maintain the normal balance of circulation, the various causes of disease act with increased effect. Loss of tone may depend upon degeneration of nerve cells. Not only may loss of tone aggravate a diathesis, but diathesis may create loss of tone.

This report has occupied but little space in considering either special forms of insanity or the especial virtues of individual drugs in the treatment of insanity. It was deemed more profitable to submit the general principles of asylum treatment guided, as we believe it to be, by the teachings of science, than to discuss the action of drugs, since their effect upon a diseased organism with disordered mental manifestations does not differ from their action upon the system under the operation of other organic and functional disorders. Finally, the reporter more than one-third of a century ago received his medical education in the University of Pennsylvania, in the Blockly and Pennsylvania

Digitized by Google

hospitals. The educators of these institutions, namely, Chapman, Gibson, Jackson, Wood, Homer, Hodge and others, believed in the power and efficiency of drugs to cure disease. The writer has had opportunities seldom surpassed, embracing military, hospital, and selected private opportunities to test the efficiency of drugs in the treatment of disease. These clinical tests have embraced in design the theory of medication of experimentalist and rationalist, of the potentialist and the nihilist, and now the teachings of these years of experience, nearly twelve of which have been devoted to the treatment of insane persons, justifies him in asserting that the physician who administers drugs or other remedies with the object and expectation that they will of their own inherent virtues and powers cure insanity or other disease, will reap the reward of complete disappointment. The physician who administers remedies with capabilities to antagonize destructive pathological processes and also remedies possessing energies capable of aiding vital activities to displace abnormal conditions with normal ones, will not be disappointed, but will fulfill the mission of a physician.

To come within the limits time allotted to read reports, I fear I have been too concise to be intelligently clear. It is said that when giants build men bring the stones. Giants have erected the temple of treatment for the insane. The report attempted to present only an imperfect outline of this magnificent temple to your view. It becomes the duty of the physicians of this and succeeding generations to examine every stone of this structure, not with censorious intentions but with the true spirit of a scientist and a lover of his fellow man, that they may add other stones of knowledge that will increase the protecting and the restorative capacity of the grand structure.

Digitized by Google

MALARIA IN CHILDREN.

By J. P. Kingsley, M. D., St. Louis.

THOUGH much has been contributed to the literature of medicine concerning diseases of children, it is surprising how little attention has been given to that malady which is so general among such patients, namely, malaria. Foreign authors almost ignore the subject, while American writers, especially those of the East, devote but little time to its consideration.

J. Lewis Smith, of New York, in his work on Diseases of Children, treats of this subject in five pages, and concludes the article by recommending quinia in doses of one grain three times a day. Meigs and Pepper in their comprehensive Treatise on Diseases of Children dispose of the subject in less than four pages. They also advise the administration of quinia in dose of one grain three times a day. They state that children at a very early age bear full doses of quinia very well and the amount they found necessary to arrest an attack of intermittent fever in a child one year of age was three grains daily. Steiner treats of malaria in children in less than two pages, while Day, Hillier and a large number of foreign writers make no mention of it in their works on diseases of children.

From this it will be seen that the inexperienced physician is compelled to acquire his knowledge from experience, or else be led astray by the text-books that treat of the affection as it occurs in adults only.

Malaria in children presents itself in such variable forms as to often baffle the diagnostic powers of the most acute physician. It was said by Schmiedler, and with much truth, that few diseases to which children are subject present themselves in such indefinite, obscure, changeable forms as does malaria.

I will state in advance that my observations have been made chiefly at my clinic for diseases of children at St. John's Hospital and Missouri Medical College Dispensary, where I have treated some three hundred children a year, for this disease

Digitized by Google

alone. While it is true that the same accurate history cannot be gleaned from clinical patients as from private or hospital patients, still we learn sufficient from the parents or guardians to warrant us in making a diagnosis which in the majority of cases is correct, and which affords us sufficient grounds to draw our conclusions. Hence my remarks on malaria in children, though drawn more from clinical than from private practice, will not suffer a particle, but will on the contrary gain strength, from the number of cases that daily come under my observation.

In children over five years, the symptoms of malaria differ but little from the symptoms manifested in the adult: under this age, however, the difference becomes more marked, sometimes increasing as the period of birth approaches. By far the most frequent type in the infant is the quotidian, due, in all probability, to the weak resisting power there is opposed to the poison. That very young infants have attacks of malarial fever is proven without a doubt. I have met such in practice, where the children were from one to three weeks old. Indeed I have had occasion, in a few cases, to witness infants who seemed to suffer from malaria, even from their birth. In these cases, however, the mother had been subject to malaria previous to the birth of her child. I am inclined to think that there is much truth in the popular belief that infants may nurse the specific poison from their mother.

Possibly the susceptibility of infants who are nursing mothers affected with malaria may be due to the deterioration of their food and to an exposure to the same causes that have produced the disease in the mother.

If it be true that the infant may have malaria at birth, or, as some have supposed, before birth, may not the specific principle enter the mother's milk and thus be communicated to the child that is nursing?

I have already stated that the type of malaria, in children under two years of age is, as a rule, quotidian. A large percentage of the cases under one year I have found to be irregular or obscure. Bohn has reported that one-third of his cases under one year were of an irregular or masked type. It is in consequence of the indefinite, vague and irregular forms of the

Digitized by Google

disease, that a correct diagnosis is attained with so much difficulty. Acute chills are rare in the young child, and the younger the rarer. However, cases have been reported where the mother perceived a tremor every day in the fetus for some time previous to its birth. Be this as it may, I do not dispute it; one thing, however, I maintain with certainty, and that is, that the acute rigor so characteristic of malaria in the adult is but rarely seen in young life. Nothing more is perceived than a general derangement of the system, and this is frequently attributed to teething, catching cold, scrofula, etc. In such cases our diagnosis should be based on the daily recurrence of the symptoms or disturbances. Here, undoubtedly, the closest observation and inquiries are necessary. Many physicians have been annoyed at the continued ill health of infants under their care, despite the prescribed treatment of tonics, alteratives, etc. They have frequently given up all hope and prescribe quinine on general principles, when much to their surprise the symptoms disappear and the child is restored to its former health and vigor.

The malarial cachexia in children manifests itself quite early. Within one or two weeks the child becomes anemic; its previous healthy and rosy complexion gives way to a sallow, grayish or yellowish color, its lips and mucous membrane become pale and bloodless, and emaciation quickly follows. Soon the spleen becomes enlarged; a fact readily appreciable upon a careful examination.

Indeed an examination of this organ should always be made, as upon this one symptom alone must our diagnosis very often rest. I have frequently prescribed an anti-malarial remedy, solely on account of the enlargement of this organ, there being no other malarial symptom present. There are times when the enlargement is perceptible only in the paroxysmal state and when it is congested. Then also, as Massvreanz states, a systolic murmur can be heard over the spleen, much resembling the uterine souffle of pregnancy. This murmur is due, he says, to the undue distension of the splenic vessels and their alternate contraction and dilatation.

It is well worth remembering that enlargement of the spleen

Digitized by Google

is often upward and backward, and consequently may escape our observation. Where this exists, dulness on percussion may be found as high up as the seventh and even sixth rib. In chronic cases it may not infrequently extend even as low down as the crest of the ilium.

Palpation alone, however, will not always enable us to discover the enlargement of the spleen.

When the malaria assumes a masked type, the pulse becomes small and but little increased in rapidity. Restlessness generally exists, and the child tosses and frets at night, is cross and pettish and, if nursing, eagerly and frequently takes to the breast or bottle. Should there be a chill it is of short duration, existing for a half an hour or more, seldom longer than an hour; in most cases, however, the rigor is not perceptible. Should the child be carefully observed, it will be noticed that the hands and feet become cold at times—that there is a languor and drowsiness, a general feeling of malaise, existing for some days before the physician is summoned in to attend it. The older the child is, the more prominent, of course, these symptoms become. In the more marked cases, the digestive organs are usually impaired and vomiting, as a rule, takes place at the onset of the attack. Food is often vomited unchanged, that had been taken into the stomach twelve or twenty-four hours previous. Patients are constantly brought to my clinic to be treated for deranged digestion or diarrhea, when malarial poison is the evil that must be combatted.

Children frequently come home from school complaining each day of headache. So continuous become their complaints that they are finally brought to a physician. He, as is often times the case, makes a slight examination and comes to a hasty conclusion. With a shrug and a wink he tells the inquiring parents that nothing serious is the matter with the child; that there is simply a slight derangement, due to close confinement and application to books. A purgative is prescribed and rest advised. With all credit to the therapeutics, though the diagnosis be at fault, the child recovers in a few days. In many cases, a simple purgative will suffice, as it is the tendency of nature to eliminate all poisons. Many cases, it is true, recover without

Digitized by Google

any treatment whatever. That the school-room does exert an influence in causing malaria I have little doubt; indeed my experience and the clinical records I have kept for the last ten years go far to prove that the school-room and its necessary accompaniments help much to producing malaria in children. I find two periods in the year when this disease is most prevalent. First in the fall, when school is resumed and again in the spring, after they have attended all winter. In the fall, a sudden change takes place in their manner of living: after leading a free, lively, romping life during the vacation, they are now confined for several hours each day. Studies now occupy their little brains instead of play and game. There is more or less mental anxiety; they are severely taxed and even in their free hours their childish sports and games are limited by some rule or other.

Moreover being crowded together in rooms, often but poorly ventilated, they are compelled to breathe an air that is impure and hot. As the weather grows cooler this air becomes the more vitiated owing to the greater want of ventilation. The child is, therefore, forced to breathe an atmosphere contaminated with the exhalations arising from the bodies of the pupils filled with small particles of matter, etc.

The second period to which I have alluded, is towards the termination of the school term, a period when the child becomes exhausted both mentally and physically. True it is that the spring and fall are seasons of the year when malaria most prevails. But, strange to say, I find that the malarial manifestations are not present in children until they begin to attend school. I have observed a large number of cases in which malaria manifested itself only when the child attended school, there being no symptoms or signs of the disease when the child remained from school.

Many cases of chorea and epilepsy have been brought before the clinic which have been apparently induced by malarial poisoning. That such were caused by malaria was well proven by the fact, that all the well known remedies laid down for nervous diseases of such a character absolutely failed, and that only where an antimalarial was administered did the nervous manifestations disappear, to be followed in a short time by the true

Digitized by Google

symptoms of malaria. May we not, therefore, give this as the rationale of the administration of arsenic in many nervous diseases?

Mothers constantly present their children for treatment for what they term a cold. These little patients have as an accompaniment either coryza, bronchitis, laryngitis, pharyngitis, or tonsillitis. I have treated a large number of cases each year for many years, presenting one or more of the above manifestations, coupled with fever. As a rule, these manifestations are the same in the same patient during each attack. When a cough is present it occurs periodically or is intensified periodically. The paroxysms of coughing occur much more frequently and with greater severity during the febrile attack. In such cases the respiration is often found to be 60, 70, or even 80 per minute, becoming normal when the fever subsides.

Acute nephritis has been observed in few cases, though albumen may be frequently found in the urine. Malarial hematuria does not exist in children, except it be the effect of acute nephritis. Spasmodic asthma is another occasional symptom of malaria. Indeed, I am treating just such a case at present, in a child two years of age.

It is important to remember that the chill and sweating stages are generally absent, or very slight in children under two years of age. All that is noticed in such children, is the febrile disturbance. In children under one year the cold and sweating stages are always absent.

After malaria has existed for a long time hydremia supervenes and edema of the ankles and face may be observed.

In regard to treatment, but a word is necessary. Quinine, one grain three times a day, as prescribed by our eastern friends, will not suffice for our western children. Our babies in the West often times require double and even three times the quantity. Nor does it matter much when the anti-periodic should be administered. It should not be given before the chill, if such should occur, as it might then tend to increase the gastric disturbance and thus not be absorbed. Frequently, owing to the nausea and vomiting, it cannot be administered, and if given will only increase these symptoms. In such cases an enema of

Digitized by Google

the bi-sulphate of quinia will be found highly useful. Five or ten grains of this salt mixed with a teaspoonful of starch water is injected into the bowel each day.

In chronic cases, or cases that are not relieved by quinia, arsenic in the form of Fowler's solution, should be administered. Children bear arsenic very well. A child of five years can with safety take five drops of Fowler's solution three times a day. It is best to administer arsenic after meals. Iron, too, may be administered in combination with arsenic. Another advantageous method of administering quinia when it cannot be borne by the mouth, is by inunction. A quantity is mixed with vaseline, and the ointment is rubbed into the body. The oleate of quinia is preferable; it should be applied thoroughly once a day. Sometimes the compound tincture of iodine, one drop in a little water every two or three hours, has succeeded where other remedies failed. Compound tincture of iodine and carbolic acid, four parts of the former to one of the latter, may be given in the same way. Where medicines have not been well borne, I have had good results from the use of the wet pack.

Conclusions.

In conclusion I will call especial attention to malaria in children.

The absence of the chill and sweating stage.

The slight periodic fever, which may be detected by the thermometer only.

The frequent or periodic pains in the head or epigastric region.

Indigestion accompanied with nausea, vomiting or diarrhea.

The frequent accompaniment of tonsillitis, pharyngitis or bronchitis.

The periodicity of the coughing spells, which occur most frequently at night.

The necessity of examining the spleen by palpation and percussion and of administering quinine to confirm diagnosis in doubtful cases.

Digitized by Google

DISCUSSION.

DR. MUDD, of St. Charles, agreed with the author that two or three grains of quinine a day was not enough. Had found that when children did not bear the sulphate of quinine on the stomach, rubbing the oleate of quinine into the skin broke the chills. Found that very small doses of carbolic acid quieted the stomach.

DR. NELSON cited a case of enlarged spleen. Child two years old had malarial fever; spleen reached the crest of the ilium. Gave cinchonidia. In ten days swelling nearly gone. Child well. Had found that with children under one year old, an ointment of quinine and lead rubbed into the skin was effective. Disagreed with the statement that children rarely have a chill. A child has a chill, but cannot express it. The temperature is always lower at the extremities. Believed that if they could talk would say that they had a chill. We rarely see perspiration after a chill in children. No question that enlargement of the spleen is a diagnostic symptom. The enlargement, however, is but transitory.

DR. STRINGFELLOW could not understand how persons could have malaria in cold weather and the thermometer at zero. Persons suffering from malaria may have a return of the chills in the spring. Had had the best results from small doses of calomel. Consequently believed that there are causes for fever other than malaria.

CASES ILLUSTRATING DISEASES AND TREATMENT OF CICATRICES—SCAR—ULCER—EPITHELIOMA. FASTENING OF ARM TO THORAX AFTER BURN.—OPERATION—RECOVERY.

By FRANK J. LUTZ, M. D., ST. LOUIS.

MR. PRESIDENT AND GENTLEMEN:

ALLOW me to ask your indulgence for the recital of two cases from practice, which have been interesting and instructive to me. Neither is unique or of very rare occurrence; on the contrary they are such as we are liable to meet in our every day's work.

Cicatricial tissue is of low vitality; its improvement and perfecting is but very slowly accomplished. Hence ulcerating cic-

Digitized by Google

atrices are not uncommon, nor is it of very rare occurrence to observe in persons of advanced age indolent ulcers upon the site of scars existing since infancy. Not infrequently we encounter well-marked papillary epithelial cancers which have taken the place of the original scar and subsequent ulcer. They are, according to Paget, most frequently seen on the lower extremities and connected with scars *repeatedly* injured. From the superficial tissues the neoplasm invades the deeper structures, the periosteum and the bones, and may endanger life by exhausting hemorrhages and by systemic infection.

CASE I.—The specimen which I have the pleasure of exhibiting to you was taken from a patient in whom there occurred a degeneration of a scar into an ulcer and finally into a well-marked epithelioma.

Anamnesis.—H. B., a farmer from the northeastern part of the state, æt. 51, with no hereditary or acquired constitutional vice, sustained a compound, comminuted fracture of the left leg, thirty-three years ago, in the lower third, for which he was treated by the late Dr. Joseph McDowell. In the course of the reparative process several necrotic pieces of bone were removed. The leg was somewhat deformed, but to all intents and purposes a useful one, and only occasionally gave him trouble, when, on account of some injury to the scar, which indicated the site of the original injury, an ulcer would form over it. Simple remedies and rest usually healed these ulcers. About two years ago he struck his leg, at the place where the scar and subsequent ulcers had been. There was free hemorrhage at the time and afterwards an ulcer formed which gradually grew larger and which bled quite freely.

Status presens.—February 9, 1885. The patient is highly anemic from excessive hemorrhages. The neoplasm encircles the entire leg and extends upwardly to the middle of the leg and downwardly to the ankle-joint and bleeds very freely on removing the dressings or on touching it with a probe or the finger. Its surface exhibits shreds of necrotic tissue and several openings through which the probe touches roughened bone. The ankle-joint is anchylosed. No enlarged glands. The diagnosis of epithelioma was subsequently confirmed by the microscope.

Digitized by Google

Fig. A.

The leg was amputated February 17, at the junction of the upper and middle third; the wound healed partly by first intention and partly by granulation. His general condition began to improve at once, and he was allowed to return to his home March 29, 1885.

The site of fracture is easily discerned; there is angling and lateral union of the tibia and fibula; part of the anterior surface of the tibia is destroyed and both bones are covered with osteophytes.[1]

The frightful deformities which are sometimes produced by the contraction of extensive cicatrices after burns, come under our notice both for cosmetic purposes and also for the restoration to usefulness of the part involved in the cicatrix.

Case II.—The photographs to which I desire to direct your attention are those of C. L., æt. 43, who, according to the history kindly furnished me by my friend Dr. Dean, was admitted into the City Hospital about nineteen months prior to his coming under my observation, August 19, 1884. More than one-third of the surface of the trunk and the lateral aspect of the thigh were involved in the burn. Cicatrization aided by skin grafting took place slowly but surely, and when the patient left the City Hospital, nineteen months after admission, the entire burnt surface, except a few ulcerating patches, was covered by a very

1. Since writing the above Vol. II of the Transactions of the American Surgical Association has come into my possession, in which Dr. T. F. Prewitt, of St. Louis, records two cases of malignant degeneration of ulcers of the leg. Vide Transactions, etc., p. 491.

Digitized by Google

pliable cicatrix. Unfortunately the arm was fastened to the side for two-thirds of this length, as shown in the picture marked

Fig. B.

B, and was therefore useless to him. He sought relief for this condition.

Owing to a very exhausting diarrhea from which he had suffered during his illness, his general condition required attention, before the arm was freed from its attachment to the trunk by a free division of the cicatrix and the subjacent tissues. Extension was employed from the very beginning, and so soon as the large wound surfaces began to granulate they were freely covered with grafts to facilitate and accelerate their cicatrization and also to prevent as much as possible the contraction of the new cicatrix, for it is a well-known fact that cicatrices formed from grafts have little tendency to contract and do contract less than the ordinary cicatrix.

March 31, 1885, the patient was dismissed presenting the ap-

Digitized by Google

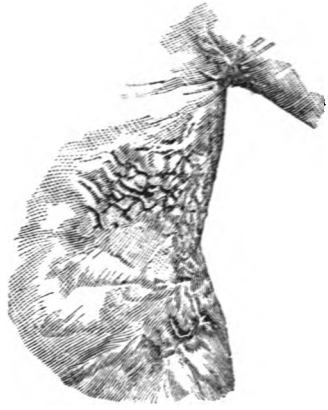


Fig. C.

pearance shown in the photograph marked C, and having very good use of his arm.

DISCUSSION.

DR. PREWITT said that degeneration of cicatrices into epithelioma was not uncommon. Malignant growths are not in the beginning constitutional. Had reported a similar case. Had seen carcinomatous degeneration follow irritation of that character. Had seen the case the doctor reported. The result was most satisfactory.

DR. HALLEY stated that the reason that infection was not so apt to follow in cancer of cicatrices, was probably owing to there being no lymphatics or lymph spaces in a cicatrix. Therefore infection could not take place until ulceration had extended beyond the border of the cicatrix.

DR. GRIFFITH agreed with Dr. Prewitt. Had amputated four breasts without any return of the disease.

DR. FRYER.—Some two years ago had removed a large epithelioma from the lower eyelid, filled up the wound with a large detached skin graft, healed perfectly; very slight deformity; to date no return of the disease.

DR. JACKSON had also removed several cancers; which did not return.

DR. GEIGER indorsed Dr. Halley; believed that there was a difference between the two forms of epithelioma. Reported a case of wound of the leg from a shell, followed by an epithelioma. Removed the mass; Returned. Had operated several times on the case. Believed that although he did not cure the case, he prolonged the patient's life. Epithelioma in cicatrices less malignant.

DR. MUDD.—Cancer in cicatrices is not the rule, and then the scars are always large and old. The cancer was always at the site of irritation. If there is infection there must be lymphatics at some point. He thought that the removal of an epithelioma was a curative process.

Digitized by Google

REPORT ON ORTHOPEDIC SURGERY.

By A. J. Steele, M. D., St. Louis.

I HAD been hoping that some one of the other members of the committee on the progress of orthopedics, appointed to which you honored us, would have offered a report ere this, but waiting in vain, and not wishing the subject to go wholly by default, I herewith present a few hastily thrown together thoughts.

Club-Foot.

In the young infant the treatment is most advantageously carried out by bringing the foot into good position with the employment of strong manual force, and there retaining it by the application of a plaster of Paris bandage, extending to above the knee, otherwise it may slip off, for the infants foot is dumpy—without character. A thin piece of board or shingle, cut larger than the sole of the foot, and of correct shape, should be fastened to the sole by the early turns of the bandage. The board may then be used as a lever by which to hold the foot in improved position while the gypsum bandage is being further applied. A thin piece of hoop-iron or strip of tin may be incorporated into the bandage, being bent around the instep of the foot and extending up the outside of the leg. This greatly fortifies the plaster. The foot, thus held until the plaster hardens, remains in good position, the shortened ligaments and tendons stretching, and the lengthened ones shortening. A snug fitting stocking or flannel bandage should encircle the parts previous to the application of the plaster bandage. In ten or fourteen days the appliance should be cut open and removed, and the foot forced into still more improved position, the parts stretched and moulded, and the splint reapplied, or better, a new one be put on. And thus the bandage may be renewed from time to time as is found necessary. Later on a retentive shoe should be worn, and still later, a walking shoe.

Digitized by Google

In older subjects and neglected cases it will be found necessary to precede the plaster treatment by tenotomy, usually of the tendo Achillis and plantar tissues. In aggravated cases where manual force, even under anesthesia, is insufficient to correct the deformity, mechanical power must be invoked, previous to the application of which, thorough division of the plantar tissues, subcutaneous, must be made. The successful issue of many a case turns upon the completeness of this cutting. In my own experience, not having had an opportunity of seeing, not being familiar with the machines that had been devised as *rectifiers*, I planned and had one made. It is simple and efficacious, and so arranged that three screw pads press upon the most prominent parts of the deformed foot, namely, first on the ball of great toe, and second on heel, these on the inner side; and third, on the head of the astragalus and scaphoid bones, on the outer and upper side. Under anesthesia, tenotomy having been performed, five or more minutes of continuous, increasing pressure should be made, the ligaments and shortened tissues cracking and tearing under this rectifying force, until the foot is fairly re-shaped. There is but little danger of sloughing where the pads impinge against the skin, the pressure being so brief. The foot is thus forced into more normal position, and, after the removal of the rectifier, is so held by the application of a gypsum bandage as before. In two or three weeks' time the splint is removed, the foot manipulated, and a bandage reapplied, and so on, till in time a club-foot shoe is substituted.

I call your attention to a new shoe I have devised, which becomes both a shoe, first, for rectification, and second, for walking. The steel sole-plate of the shoe is divided opposite the medio-tarsal joint, and the two parts connected by a ball and socket joint. The socket is made in two halves, clamps, approximated by a screw worked with a key. Thus the relation of the anterior to the posterior part of the shoe can be changed to any direction, and there held firmly by clamping the joint. Therefore the foot, well laced into the shoe, becomes a part of the latter and obedient to its possibilities. The heel being grasped with one hand, and the front of the shoe, with the other,

Digitized by Google

all needed force is used to give the two a more normal relationship; thus held, an assistant tightens the clamp. From day to day the case progresses until sufficient improvement is had for walking purposes, then the joint may be left loose, movable, and rubber elastics attached externally, artificial muscles, converting the corrective into a walking shoe.

Much attention should be given, in all cases of club-foot, to developing and strengthening the muscles controlling the foot; electricity, massage, heat, active and passive motion should one and all be assiduously employed to restore power to the weakened parts. Correction of the deformity is only a part of the treatment; and it is just here that surgeons fail in making permanent cures. They operate without giving due attention to the after treatment, which is necessarily tedious.

In adult cases of club-foot but little remains in the way of rectification but to remove a portion of the tarsus; a wedge-shaped piece from the outer side, or all of the cuboid bone. Formidable operations but correct in principle and successful in practice.

Pott's Disease.

The wave of doctrine which a few years since swept over the profession, especially of our own country, to the effect that Pott's disease was strictly a local trouble, local in cause and in pathology and therefore should be in treatment, has about subsided. It, like hip-joint disease, is certainly due to a constitutional fault, call it struma if you wish, either congenital or acquired. An attack of sickness in a child, as of measles, may induce such a condition of the system as to render it susceptible to a chronic bone trouble from a mere local injury, to which it would not have been liable previous to such illness. A markedly impaired state of the system of either parent at the time of conception, even though such impairment were due to a temporary ailment, may cause a *strumous* habit in the progeny.[1]

---

1. Dr. Mulhall, our fellow member, enunciated such doctrine in his able paper read before the Association at its present meeting.

Digitized by Google

Struma, therefore, is not an entity; it is rather a state or condition in which, from slight traumatism an inflammation is lighted up, that tends to cause a breaking down rather than to repair. It need not then be due necessarily to a syphilitic, to a tuberculous or to a scrofulous diathesis, but to an existing systemic fault of an occult nature.

The argument that local treatment cures this trouble, *ergo*, the disease must be local, is only specious, for in our local treatment we are either directly or indirectly giving or permitting an improved general treatment. For example, place a jacket on a cripple from spinal trouble and he is both enabled to take and seeks exercise and fresh air and sunlight, constitutional remedies.

In the treatment of Pott's disease support to the spine—immobilization—is still the indication. If the inflammation is acute, recumbency is necessary, later on support can best be had by the gypsum jacket, and still later by a removable brace. I have an individual preference for leather as a material in the construction of the latter. In the mid-dorsal region and below it the jacket extending to the axilla affords the requisite support. In the upper dorsal the appliance should extend above the shoulders. In the cervical region support is best afforded by means of a leather collar, coming well down upon the shoulders and extending upwards well under the chin and occiput, and in some cases extending over the back of the head and around the forehead like a helmet.

One will, however, be guided by the requirements of an individual case, at one time a well-fitting cuirass, like a shell to the whole back with a constant supine position, at another time a jury-mast suspension of the head or an occipito-mental support attached to a gypsum or leather jacket.

Paralysis occurring in the progress of Pott's disease, usually in cases that have been neglected, is a complication that rights itself as the results of the inflammatory action at the part subside. It is due to pressure upon the cord or nerves—rarely by the bones but rather by the swelling or tumefaction of the soft structures, which swelling and pressure subside as the case improves under proper treatment. Any paralysis remaining

Digitized by Google

after the local trouble has been subdued is best overcome by the employment of electricity, massage, etc.

Hip-Joint Disease.

Of hip-joint disease I can only emphasize what I so strongly urged at the last meeting of the Association in regard to its treatment, viz., the utmost quiet of the part from first to last. "Motion without friction" is a myth; therefore the more thoroughly we can immobilize the inflamed joint and adjacent parts the more effectually do we meet the indications for treatment. I have found this best accomplished in the earlier stages by the use of the stretcher splint (exhibited on a former occasion) and later on, the acute symptoms having subsided, by the wearing of a portable splint—a modification of Thomas's.

Abscess forming may be left to nature, unless tending to burrow, then aspirated, which relieves pressure and keeps the pus localized. These abscesses do well and subside as the original process is controlled.

Lateral Curvature of the Spine.

In *Rotary Lateral Curvature* the deformity is best evidenced by having the patient bend the spine forward. This position crowds the rotated vertebræ still more round, carrying the angles of the ribs farther back above, and the mass of loin muscles more prominent below, giving great distinctness to the one or the other. In its treatment I have not adopted the plan of some of my eastern friends, of at once applying a jacket; for it is an affection of weakened muscles, or at least of loss of antagonism of opposite spinal muscles, and to immobilize the spine would tend still more to weaken, from non use these muscles. I rather place the body by auto-voluntary effort in improved position, while the muscles which so place and hold it are strengthened by exercise, massage and electricity. These exercises are of course special. Later on, when much improvement is attained there may be applied a removable corset, made of firm material as of sole-leather, fashioned over a plaster cast of the body when in corrected position. Methodical exercise should be continued faithfully for months, possibly years.

Digitized by Google

I am certainly no advocate of the use of steel braces, encircling bands, pressure plates, steel arms as levers moved by powerful cogs. Especially at the Royal Orthopedic Hospital, where hundreds of these cases apply annually for treatment, did I witness this practice, and received the assurance of the attending surgeon that good results were had. But I was far from being convinced or converted. The convenience of the surgeon is favored by simply ordering for the patient such a machine and from time to time screwing up the plates tighter. A daily superintendence and giving of methodical exercise is another matter, requiring judgment, time, patience. The earlier cases can be had for treatment, *i. e.*, before the bones are misshaped the better.

Curved Tiblæ.

Tibial curvatures in the child may be corrected by the application of a straight splint, a test for the use of which being a slight bending of the bone by manual force. In the older child or in very firm bones apparatus will accomplish but little, *osteotomy* being required here. Gigantic strides have been made of late years in the methods and employment of this operation. For knock-knee, bow-legs, anchylosis, deformities from rickets, it has been found extremely serviceable. The usual operation consists in weakening the bone by cutting into it with a chisel, and then breaking it, placing the limb in improved position, applying a splint, preferably gypsum, and awaiting union.

Macewen, of Glasgow, has done more than any other surgeons to perfect this operation. To witness his operations and results will convince the most incredulous that the procedure is simple, practical, safe and effective.

Anchlyosis.

In the treatment of *false anchlyosis* it were better to divide the resisting tendons before resorting to *brisement forcé*, and then not to make forcible extension of the limb, but first marked flexion and then gentle extension. The adhesions being thus thoroughly broken up and the inflammation subdued then resort may be had to persistent passive motion.

Digitized by Google

True anchylosis requires operation for obtaining more advantageous position. Osteotomy finds place here: Refracture or removal of wedge-shaped piece of bone.

At Lyons I had the pleasure of witnessing the operation of osteoclasis, accomplished by a powerful and ingenious machine, lever force being used and the bone breaking just where indicated. Though the French have reported much success in this procedure for the rectification of deformity, yet it has not become popular in other countries; osteotomy taking the preference.

Massage.

Massage, one of the lost therapeutic arts, is of late finding place in orthopedic treatment. In joint troubles, the inflammation having been subdued, massage rapidly assists resolution. In paralysis where innervation still exists and the muscular structure is not entirely destroyed, it is a valuable adjuvant to the other therapeutic agents employed.

"In highly acute arthritis of any kind attended with fever, massage would not be thought appropriate until the disease had assumed a subacute or chronic form, and the fever had abated. Then massage might be used with benefit, provided there was no solution of continuity, true anchylosis or risk of hastening absorption of inflammatory products pernicious to the system. In disease of bone or cartilage massage would be useless.[1]"

The treatment of sprains by massage seems to shorten the period of recovery to one-half or one-third the time required by the old stereotyped methods. "The vast number of sprains of all degrees of severity that have recovered in from seven to nine days under massage would seem to prove either that rupture of ligaments, tendons and laceration of muscles with effusion of blood into the joint occur much less frequently than is supposed, or else are of much less serious import when treated by massage."[2]

---

1. Graham. 2. Graham.

Digitized by Google

DISEASES OF CHILDREN.

By Jas. F. Hanna.

Mr. President:

As chairman of your sub-committee I could scarcely ask to be relieved from the duty of making a report on diseases of children. The subject is a very exhaustive one, as well as one of deep interest to the medical profession, but the space which should be properly allotted to a report of this kind, where so many reports are expected, must of necessity be quite limited; hence, instead of undertaking the task so herculean in its demands, or showing a disposition to shirk the responsibility and duty asked of me by the Association, I will undertake to mention some facts concerning childhood, and then offer a few suggestions about the management of the diseases of childhood based upon the truths we propose to mention.

It may here be mentioned that children are miniature grown-up people, subject to the same diseases, etc. We learn from physiology that nutriment is necessary to the good health and well-being of the adult, that he is provided with systems and apparatuses very well adapted to converting aliments into the various forces essential to keeping the human organism in a physiological condition. It has been truly said, "Living is dying;" that is, in the process of life there is continual waste going on, constant destruction of tissue of the organs which perform the work of converting the food into nutritious material for every part and parcel of the organism. Hence, in the adult we must have nerve force, muscular force, secretory force, excretory force, etc. In the child we must have *nerve*, for, while all these forces mentioned are needed in childhood, we must remember that a great many of the organs whose duty it is to secrete, excrete, etc., are as yet imperfectly developed; hence we must have nourishment to promote the growth, not only of these organs, but also of the whole physical organism. We know that, before alimentary material can exert all the necessary forces, it has to be converted into blood, and the blood distributed throughout the system by the arteries carrying the needed

Digitized by Google

nourishment to every portion of the organism; then carried back by the veins to the right heart to be again sent through the lungs, there to be relieved of waste material and loaded with vitalizing material, oxygen, it takes the same course on the same mission. Now we see that even in the adult the circulatory system, the respiratory system, and the digestive apparatus must each do its work well in order to maintain a healthy condition of the individual. Since, then, in children, the systems and several of the organs constituting the digestive apparatus are imperfectly developed, and yet the child must have the necessary forces not only to repair waste, but also to produce tissue for the more perfect development of not only these organs, but also of the whole body, every one must see how absolutely necessary it is to exercise the strictest vigilance over the process of digestion in the child; how extremely careful it behooves us to be in detecting and treating disturbances of the circulation and respiration; how exceedingly cautious we should be in the selection and administration of remedies, lest, in our efforts to relieve, we make worse; how slow we ought to be to interfere with or disturb nature's effort to relieve the difficulty, for we must all admit that nature's effort is, as a rule, much more successful than the best doctor's; and he is doubtless the best doctor who has learned nature well, and makes his practice auxiliary to nature and never runs across her path.

The best food for the infant, beyond all cavil, is the mother's milk. As childhood is reckoned to begin about the seventh month, it is readily seen that the beginning of childhood is a very critical period of human existence. This is the time when the diet begins to undergo a change from a fluid to a more solid diet; and a change in the diet of this sort is likely to derange the alimentary canal in some part of its course, which will soon make quite a change for the worse in the nourishment of the child. We believe this to be true: that a prolific source of all the diseases that most interfere with the development and nutrition of the child is found in disturbances of the digestive tract; and these disturbances are generally results of the use of improper articles of food taken in improper quantities or at unseasonable times. The food must be suited to the digestive capacity of the

Digitized by Google

child. If a child has had only its mother's milk until nearly seven months, it must not be put on a diet of solid food—in short, bread and meat—right at once. It must have a mixed diet until its system has become somewhat accustomed to the solid food, until its stomach has been educated to tolerate something else than milk.

The same precautions must be exercised in the administration of medicines to children. We must be careful to use medicine slowly, sparingly; with children. From the facts in the case, a diagnosis of their ailments is often obscure and attended with difficulty, and oftentimes, at best, involves great uncertainty. They can not tell us much about what hurts them. We have to depend upon objective symptoms and physicial exploration mainly for data upon which to base a diagnosis. An old country smith once asked a young doctor, "When you are called to see a child and can't tell what is the matter with it, what do you do?" He replied, "Give it a dose of calomel and go back the next day." Perhaps, unless there were signs of great pain, a better practice would have been to have given *time* and returned the next day; and in twenty-four hours' dose of time, the probability is, nature would have relieved the patient, or the disease would have so developed as to be easily recognizable.

The pulse of the child beats quicker, the respirations are more frequent, and of course the circuit of the circulation is sooner made than in the adult, and the child may truly be said to live faster, and be more active. This very activity, in connection with imperfectly developed organs, may render him more susceptible of disease; and it may also be one reason why he more quickly oftentimes recovers. Perhaps the best preparation we can make for the management of the diseases of children is to make ourselves familiar with their physiology, and, indeed, it is doubtless the best preparation we can make to successfully diagnosticate and treat the diseases of adults. Study well their circulation, respiration, and specially well their digestion; then use the right food at seasonable times, always exercising discretion in regard to quantity and quality—let our medication be based upon true physiological principles, and administered in keeping with the soundest and most approved therapeutical rules.

Digitized by Google

PROGRESS OF SURGERY.

By W. V. Walker, M. D., Mexico, Mo.

OUR report cannot be supposed to embrace Abdominal, Gynecological, Genito-urinary and Orthopedic surgery, these duties devolving upon the several sub-committees. Absolutely new developments have been few since our last meeting. However, recent operations and tenets in surgery have been tested with some marked developments, and much yet veiled with uncertainty.

The congregation and interchange of views of many of the ablest surgeons of the world, at Copenhagen, last August, proved a fountain from which will flow a continuous stream of advancement throughout all civilized nations.

Asepticism is rapidly revolutionizing wound treatment. Under it, regions are repeatedly invaded with impunity that have hitherto daunted the most bold. However, not a few among the first men in the profession claim that cleanliness is the *sum toto* of this vaunted practice.

The details of Listerism are largely dispensed with, and more simple means used, bichloride of mercury and iodoform being the general favorites. And the aim is to render the wounds, surrounding parts, dressings and everything that comes in contact with the wound aseptic. By this means, and by improved ligatures and drainage, progressive surgery aims at healing at one operation, and often by one dressing, which is a great advancement over the old open treatment, and healing by granulation. From imperfect study and limited experience, we believe in antiseptic surgery, but leave further comments to those more able to make them.

Bone Surgery is probably marked with more progress than any other branch. The extensive use of the various osteotomes, chisels, files, trephines, drills, hammers, curettes, etc., persuades one that osteotomy has developed almost into a bone carpentry, with nature kindly patching misfits and growing material when lacking. Macewen's operation for genu valgum eclipsing those of Ogston and Schede, stands prominent among advance-

Digitized by Google

ments. Ogston's operation for flat foot, causing ankylosis of the astragalo schaphoid joint, and other kindred operations on the tarsus, where ivory and metal nails are used to coapt joints until nature glues them by ankylosis, are worthy of mention. Again, resections of joints, excisions of portions of shafts, and scraping the medulla from the entire length of long bones, though not new, are being greatly improved on in extent of application and results.

Formerly it was taught that to destroy the medulla was to destroy the life of the bone, which is now known to be false.

For months the great subject for German and French pathologists has been, *Surgical Tuberculosis*, especially *Tubercular Joint Inflammations*, and their remedies, *Resections and Arthrotomy*.

They claim that caries, necrosis, osteomyelitis, ostitis, periostitis, tumor albus, so-called scrofula, lupus, cold abscesses, fistula in ano, and in fact, most of the slow inflammations of the skin, mucous membrane, connective tissue, periosteum, bone, synovial membranes, glands, and all the genito-urinary tract, are tubercular and back their claim by the presence of giant cells, tubercle, bacilli, in these fields of inflammation, and also inoculation and culture experiments with the bacilli. If one fully believes in this theory the natural query is, what is not tubercular? There is strong evidence that scrofula is but another name for tuberculosis. Furthermore, that many suppurative bone and joint affections, probably cold abscesses and possibly lupus, are forms of the same disease. But before accepting the list wholesale, many surgeons will demand stronger proof.

The practical application of this theory indicates, as treatment of this disease, from a surgical stand-point, destruction of the tuberculous foci by curette, caustics, extirpation, enucleation, resection and amputation of diseased parts, which if thoroughly done promise good results.

London medical societies have been agitated lately over an affection, newly named at least, if not a new disease, viz: *Charcot's Disease.* It resembles rheumatic arthritis, with which some claim it to be identical, and is accompanied by locomotor ataxia, either as a co-incidence or as cause and effect, about which such men as Paget, Hutchison, Buzzard, Clark and Humphrey differ.

Digitized by Google

Osseous union of fractured patella is still being strongly attempted. A new splint by *Ruse*, Agnu's splint and Mangaigne's hooks are among the best dressings, antiseptic suturing probably having preference in yielding bony union. An extreme practice is shortening the femur by excision in order to keep the fragments of the patella coapted.

Head Surgery is at last making some substantial progress.

The question now is not shall an operation be performed, but what are the limits in searching for pus, tumors, etc., and what symptoms demand, and what contraindicates operations? The tendency is to trephine, not only for fractures with, and often without symptoms of compression, but for syphilitic hemiplegia, traumatic epilepsy, tympanic disease, neuralgia, insanity, tumors, etc. Cerebral localization is receiving universal attention, and has at least once guided the hand of the surgeon to a tumor beneath the surface of the brain; and often to abscesses and spiculated fractures of internal table. Statistics show that compound fractures with free drainage are not near so fatal as simple ones without drainage.

Excision of the Rectum has increased in favor under improvements by Esmarch and Weith, of New York. One important aim in this, as in other operations, is a minimum loss of blood. To render this operation aseptic, some advocate colotomy and artificial anus.

Some new points are being developed over the following operations, which I will simply name without comment:

Neuber's new operation in amputations.

Excision of scalled scrofulous glands.

Pneumotomy and pneumectomy.

Extirpation of thyroid gland, partial and complete, and sequelae.

Sutures.—There have been some recent changes in suturing, among them is the following: Catgut is the favorite material, except where early absorption would lead to hemorrhage in dangerous localities. The continuous suture is used more than formerly; buried sutures of catgut, that is, uniting individual structures of deep wounds from within out. It is claimed that cicatrices do not give way so readily after this suture.

Digitized by Google

Anesthetics.—The almost universal verdict favors ether as an anesthetic, except with children, upon whom chloroform seems to act well. Still many good surgeons continue to use chloroform. Rectal etherization is practically abandoned, several lives having been lost by it, and many cases of rectal ulcer following it. The new anaesthetic, muriate of cocaine, has been favorably received in minor surgery, especially of mucous surfaces. Hypodermic injections of this drug render small cuttings painless.

Drainage of Wounds is quite a desideratum, especially in those treated antiseptically. Some use rubber tubes and redress in seven to ten days, when the tube is removed for the sinus to heal. Others advocate decalcined bone, which is aborbed and does not leave a sinus. Some of these, however, absorb too soon, or collapse, while others do not absorb at all. An old method revived is, to use horse hair, a few strands of which are withdrawn from time to time, until all are removed. The tube and hair are combined by some, the tube removed the first dressing and the hair gradually.

Theoretically, bunches of catgut inserted between well coapted flaps should act perfectly; but practically it falls short of expectations except for thin serous discharges.

REPORT OF A CASE OF OVARIOTOMY AT THE TIME OF MENSTRUATION.

By W. I. Heddens, M. D., St. Joseph.

MISS RUCE of Kentucky, æt. 20, had a slowly enlarging abdomen which caused some scandal in her neighborhood among gossiping old women of both sexes—much to her shame and mortification, which she could only bear in silence and protest until *time* should vindicate her chastity.

When she came under my observation and treatment it was over two years' duration and the tumor so pressed upon the bladder that the desire to micturate was almost constant and the obstruction to the descent of the diaphragm so much that

Digitized by Google

her respiration was greatly interfered with, consequently her blood was imperfectly oxygenated, her left heart engorged, the circulation of the capillaries weak and causing œdema of the extremities.

In fact, the tumor was so immense that the diagnosis was very difficult and several physicians who examined her pronounced it anasarca.

She was scarcely able to walk across the room when I first saw her and had to be assisted in and out of bed. She was very reluctant to have the operation performed. But she was a sensible and educated lady, and when she reflected that her ife was a burden to her and after my telling her the end was certain and inevitable if left to itself and that there was a *possibility* of recovery if operated upon, she very wisely consented; and after having reflected upon the case as I had stated it to her she never wavered in the belief that she would get well.

On May 12th, I introduced a trocar and drew off two wooden buckets of water from one cyst. I made no further effort to reduce the bulk until the final operation. Having prepared her system by freely moving her bowels every day with oil and turpentine, the day was set for the operation and her relatives had come from a distance to be present. I unexpectedly found symptoms of approaching monthly sickness, and she herself said that very day or the next it ought be on her. Somewhat against the wishes of my assistant, I decided to operate, which I did by an ncision in the linæ alba, removing a multilocular cyst of over fifty-five pounds weight (7 cysts). Tying the pedicle with stout saddler's silk and dropping it back in the abdomen. I stitched the cut first with deep silver wire and superficial sutures, dressed with cotton soaked in gylcerine and tinctura opii and a cotton roller bandage, and placed her on her back in the bed. In six hours after the operation the show was discovered and she used twelve napkins and had her usual amount of discharge. The remaining ovary was healthy but somewhat enlarged and her uterus was of the usual size and showed no sign either on its external side nor from enlargement nor softness of any pathological change going on within. She had an unusually rapid recovery, being able to sit up on the 8th day and walked

Digitized by Google

across the room on the 14th day, and the whole wound was entirely healed on the 20th day, and from that day to this has had perfect health and is to-day, now over two years, I am told, a remarkably fine looking young woman living in a distant town.

Operation at 10 A. M., May 27, 1883.

	Temperature	Respiration	Pulse.
May 27, 2 P. M.,	98°	18	74
" 27, 7 "	96°	19	70
" 28, 7 A. M.,	100°	20	102
" " 12 M.,	100½°	20	108
" " 7 P. M.,	101°	22	120
" 29, 7 A. M.,	98°	17	78
" " 12 M.,	100°	18	102
" " 7 P. M.,	100½°	18	118
" 30 7 A. M.,	99°	16	110
" " 12 M.,	101½°	16	108
" " 7 P. M.,	97°	16	96
June 1 7 A. M.,	97°	16	96
" " 7 P. M.,	98°	16	90
" 2 7 A. M.,	96°	15	78

There was no discharge from peritoneal cavity. A little pus escaped from cellular tissue. The operation was done in an upstairs bedroom without any "listerine" or antiseptics except carbolized oil, in which all instruments were dipped, and small linen napkins also dipped in it were used to keep the fingers from touching the bowels and peritoneum.

The whole exposed surfaces were well sponged and allowed to glaze over before closing the wound.

There were present and assisted in the operation, my son, Dr. J. W. Heddens, Drs. Catlett, Geiger and Hoyt.

Digitized by Google

PROGRESS OF OPTHALMOLOGY:

By J. H. Thompson, M. D., Kansas City, Mo.

IT is with a feeling of gratitude and pride that I respond to the invitation of the chairman of my committee, and present for your consideration a report on the progress of ophthalmology during the last twelve months.

At no time within the last decade has any other branch of the profession made such strides as ophthalmic surgery. Indeed, it is as much as any one man can do to review the immense amount of literature which emanates from the different schools, both at home and abroad; and although we must admit that the medical press is responsible for much unwarranted nonsense and dangerous trash, still it is an undeniable truth that great strides are being made in this branch of our art.

I hope this Association will not judge me severely or credit me with more than my quota of conceit, if I suggest that it is on occasions of this character, when we are permitted to present only those facts which may be relied upon, that we are able to discover what is true and what is false. If I, in my endeavor to make this report as complete as the committee would like, should exhaust the material I have for review, I would grow tedious and uninteresting; neither time nor patience will permit of a thorough review, consequently you will pardon me if I confine myself to three or four of the most important subjects.

The first I shall call your attention to is jequirity. It is unnecessary here to go into details concerning the botanical position of this drug, nor is it my purpose to spend time in a history of its discovery and introduction into ophthalmic surgery. I only desire to report on the progress it has made. I think it is now some two years since our attention was called by De Wecker, of Paris, to a new drug, which had the property, when applied in an infusion to the conjunctiva, of exciting an inflammation peculiar in its course and behavior, and croupous in character. It was claimed, in a most extravagant manner, that this traumatic inflammation—*sit venia verbo*—although not at all dangerous in

Digitized by Google

itself, would destroy and remove that intractable disease known as trachoma. It is only necessary for one to be acquainted with the disease to realize the importance of this discovery; and inasmuch as this treatment was recommended by the first oculist of France, it was not long before its introduction became general.

The reports as they appeared in the journals were, to say the least, remarkably flattering, so much so that many were forced to believe that trachoma would disappear from ophthalmic clinics.

I recollect reading a report on the use of jequirity in one of the Eastern hospitals. The statements were astonishing. Connected with this particular institution was a large eye clinic, from which was received sufficient material to keep one hundred or more beds filled with patients suffering from acute and chronic trachoma, and acute corneal affections dependent upon the same. Jequirity depopulated these wards — all leaving improved or cured. Now, I certainly believe that such statements are extravagant, and from what I have learned since, I am inclined to think that the bean has lost some of its virtues. Reports of a like character filled our special journals, until Knapp, of New York, reported some very unfortunate results, and made some rather unfavorable comments.

However, the accumulated evidence of the best and most conscientious men proves that in some respects jequirity is the best known remedy for some forms of trachoma, especially in old granular lids with pannus. The remedy is a powerful one, but not devoid of danger. It has long been known that, if a severe acute purulent ophthalmia be excited in an old case of trachoma in which there is marked infiltration and vascularity of the cornea, on the subsidence of the acquired disease the former and its effects will have disappeared. The material used for this purpose was the pus taken from an eye suffering from ophthalmia neonatorum. Now, although the results were many times satisfactory, still it was not an uncommon occurrence to make matters worse, and even lose the eye. For such reasons the method of inoculation was justly condemned. Jequirity excites an inflammation, which, although differing from that by conjunctival pus, still produces the same effect on the chronic disease. The exudation is croupous, not as a rule blennorrheal. It is unnecessary to say

Digitized by Google

anything more of the symptoms, course and treatment of the jequirity ophthalmia, for that is now well understood. I only desire to point out some of the dangers which may and do arise from its use.

For ages surgeons have dreaded the appearance of a diphtheritic inflammation of the conjunctiva, even in its simplest form; and well they may, for, so far as I know, no disease of the eye is more intractable to treatment, or more disastrous in its results. Now, however dissimilar a croupous or a diphtheritic exudation may be on different mucous surfaces, it is somewhat difficult to differentiate the diseases in the eye. In theory it may be easy, but in fact it is hard to learn where croup ends and diphtheria begins. Although we have been led to believe that jequirity excites a croupous inflammation, there is much evidence to warrant the belief that the inflammation is sometimes diphtheritic and associated with many of the dangers common to that disease. Hermann Knapp was the first to point out this peculiarity; and, in an open letter addressed to DeWecker, stated that in his hands the remedy had on more than one occasion acted badly, indeed disastrously. DeWecker responded in a long letter, which appeared in the "*Archives of Ophthalmology*," expressing surprise that our surgeons should have found danger in the use of jequirity, and then, for the first time, gave us some very important rules. He stated emphatically that the drug was not applicable in acute trachoma, or trachoma in any one of its stages if there was a purulent discharge. He only advised it in chronic dry trachoma, especially when associated with diffused infiltrated or vascular pannus. I find that others have made the same suggestions. In moist trachoma, or, as Von Arlt teaches, chronic blennorrhœa, jequirity increases the inflammation and the amount of discharge without altering its character; the pus is infectious. Thus, in a case reported, the inflammation in one eye, excited artificially, cured or relieved the trachoma, but the pus exuding between the lids infected the other eye, and it was lost as in acute blennorrhœa. It is in such cases as these that we have to fear the diphtheritic deposit, and it is in such cases we must be more than usually careful. In fine, evidence we now have justifies the following conclusions:

Digitized by Google

1. Jequirity, applied to the conjunctiva, excites an acute inflammation of the same, which is croupous in character.

2. It will do the same even if the mucous membrane is diseased; but in trachoma the artificial disease will cause an absorption of the neoplastic product, be it on the cornea, or on the membrane covering the tarsal cartilages.

3. In trachoma of the moist variety, when there is a secretion of pus, jequirity is contra-indicated. It is dangerous, exciting at times an inflammation somewhat allied to diphtheria, the severity of which is in proportion to the purulency of the original disease.

4. In old trachoma with pannus, even if there be extensive cicatricial changes in the conjunctiva, especially in such cases as before justified inoculation, jequirity is the best and safest remedy; but it must not be forgotten that it is often necessary to excite the artificial inflammation several times before the best results can be obtained.

In conclusion: jequirity is an invaluable addition to our pharmacopœia; but although it is, as a rule, mild in its action, it is not devoid of danger. It is a powerful remedy, and should not be used by those who do not feel competent to treat the severer forms of eye diseases.

Since the last meeting of this Association the entire medical world has been informed of the introduction into surgery of a new anæsthetic—viz., the muriate of cocoaine. This alkaloid of the erythroxylon coca possesses the property of anæsthetizing all mucous surfaces when applied to them in sufficiently concentrated solutions. I can hardly express the agreeable astonishment we all experienced when we, for the first time, heard of the wonderful capacities of this drug. As after the discovery of the bacillus tuberculosis by Koch there were but few scientific men on earth who were not quickly informed of the fact, so with the medicine we now have under consideration, it was but a few days after the last meeting of the Opthalmological Congress at Heidelberg before every doctor within reach of the telegraph was informed of the properties of this drug. It is to Dr. H. D. Noyes, of New York City, that we are indebted for the first knowledge we had concerning it. On the 19th of September, 1884, he ad-

Digitized by Google

dressed an open letter to the *New York Medical Record*, giving an account of some operations on the eye he had witnessed at Heidelberg under local anæsthesia produced by the instillation into the conjunctival sack of a four-per-cent. solution of the muriate of cocaine. We learned from him that a certain Dr. Karl Kroller, of Vienna, by accident or experiment, had discovered that if a solution of this alkaloid of coca be dropped into the eye, the parts within a few moments could be considered as anæsthetized, when many superficial operations could be performed without causing pain. Of course it is unnecessary for me to dilate on the importance of this discovery; and, if I should, I could hardly express the joy every ophthalmic surgeon felt that he could comfortably perform many operations on the eye without resorting to the use of ether or chloroform.

Since the publication of this valuable letter by the *Record*, every journal in the United States has had something to say about the "new anæsthetic." We have had the muriate of cocaine morning, noon, and night. The quacks filled the daily papers, and the oculists the covers and pages of the periodicals. It was to be the panacea for all ills. No part of the body could resist its influence, the rectum, the eye, the urethra and cervix were made approachable. In fine, man was to suffer no more. Now, although I believe that much that has been written concerning this drug is false and unreliable, still we must admit that it is a valuable addition to our list of remedies.

Since it is my purpose only to speak of the drug from the standpoint of an ophthalmologist, I shall confine my remarks alone to its effects on the eye, and consider—

1. Its influence over the sensitive nerves of the cornea and conjunctiva.
2. Its influence on the pupil.
3. Its influence on the accommodative apparatus of the eye.

The muriate of cocaine destroys the sensibility of the cornea and conjunctiva, so much so that many superficial operations can be painlessly performed. If a two-per-cent solution be used the sensibility becomes blunted in about two minutes, the anæsthesia completed in ten or fifteen minutes. Usually one or two drops are sufficient to have this effect, but I have found that the

Digitized by Google

anæsthesia from one instillation of that strength is very superficial and transitory. If within a minute a second instillation be made the effect is more rapid and profound, but is not more than superficial. If a four-per-cent solution be used the effect is more pronounced and rapid, the loss of sensibility is complete and deeper; but at no time is there any anæsthesia of the deep structures. The same may be said of its effect on the cornea. I am inclined to think that the sensibility of the cornea is very superficial, for I have found a weak solution sufficient to benumb it before the alkaloid has had time to reach the deeper layers. If a drop of the four-per-cent solution be placed under the conjunctiva, as is sometimes done in the operation for strabismus, the deep parts are then affected, when dividing of the tendon may be completed without pain. Continuing on in this manner step by step, the different muscles may be detached and the globe enucleated. In my experience with cocaine the sensibility of the lids is not affected, however much may be instilled into the conjunctival sack.

Cocaine is a decided mydriatic. The alkaloid rapidly reaches the anterior chamber and paralyzes the constrictor muscle of the iris. This effect of the drug, although not so complete as that produced by atropia, is more rapid and transitory, so much so that we may use it as a convenient mydriatic in ophthalmic examinations. Like atropia, it paralyzes the ciliary muscle, and consequently, the accommodation. The near point recedes from the eye and the range of accommodation diminishes. Unlike atropia, however, these mechanical changes are not complete, consequently little reliance can be placed on the muriate of cocaine as an aid in the correction of errors of refraction, or the fitting of glasses.

If a four-per-cent solution of cocaine be injected into the lachrymal sac, the parts will be benumbed, when sounds can be more easily passed; the pain which the probe excites is diminished, but, in my experience, never entirely destroyed. Dr. Green, of St. Louis, recommends the use of atropia in combination with the muriate of cocaine in acute inflammation of the cornea, and in iritis. The combined solutions more rapidly and completely influence the course of these inflammations and the contraction

Digitized by Google

of the pupil dependent upon the local or reflex irritation. We have all learned to appreciate any method which will secure a dilatation of the pupil in these cases. Not only does cocaine influence the movements of the iris, but it has a most decided effect on the circulation of the parts lining the anterior part of the eye. It so depletes the blood-vessels that incisions may be made into the iris without bleeding. The same may be said of the conjunctiva. This is the opinion of some authorities; but, in my experience, wounds of the conjunctiva under cocaine bleed considerable, although it does in a measure control that of the uveal tract. From the evidence we have before us I think we can draw the following conclusions:

1. The muriate of cocaine is a decided anæsthetic to all mucous surfaces, especially the conjunctiva and cornea.

2. In concentrated solutions it will, when brought in immediate contact with the deeper strictures, act likewise.

3. It is both a safe and reliable mydriatic, but is not so decided or powerful as atropia.

4. Because it quickly dilates the pupil it is of value in ophthalmoscopic examinations.

If the solution be applied into the anterior chamber after the primary incision for cataract, the sensibility of the iris is destroyed, when it may be cut without pain. This practice, I think, is dangerous, as several cases of destructive inflammation have been reported.

For minor operations on the eye and the mucous covering, cocaine is a valuable addition to the list of anæsthetics; but in capital operations on nervous persons it is better to use chloroform or ether.

I desire to call your attention to an advance in the treatment of glaucoma. It is the stretching of the infra-trochlea nerve, with or without rupture. Abadie, in the 89th vol. of the *Anales d'Ophthalmologie*, published an article recommending stretching this nerve in glaucoma, and advocated the method for congenital hydrophthalmus. Badal, also, in an original paper which appeared in the same journal, recommended very highly this treatment, and published some very remarkable results. We are informed by these gentlemen that the elongation of

Digitized by Google

either the supra- or the infra-orbital nerve, or the external nasal nerve, suffices to relieve the pain and distress in glaucoma in all its forms, but more especially the chronic variety. He also reports fifteen cases in which he had the happiest results. It can not be denied that in simple inflammatory glaucoma, iridectomy or sclerotomy meets all the indications; and I doubt if nerve-stretching can be considered an advance in the treatment. It is in cases of chronic glaucoma that the method of Abadie and Badal is best applied; and it is in those cases in which neither iridectomy or sclerotomy is successful that operations on the nerves offer the best results. This method is also recommended by Trouseau, who reports nine successful cases out of ten. If time permitted, I should like very much to read extracts from the above papers, especially that part which refers to the physiological reasoning advanced by the introducers of the plan. The whole subject is extremely interesting and instructive, and I would advise all who wish further information to refer to the original papers as they appear in French ophthalmological journals.

Mooren is still urging on the profession his method of ripening cataract—viz., trituration of the lens after preliminary iridectomy. The reports of our own surgeons are somewhat flattering, but it can not be denied that more material is necessary to place this method on the list of true advancements.

I am pleased to learn that there is a growing tendency in the profession to discard large probes and cutting instruments in the treatment of diseases of the lachrymal sack and duct. I am inclined to think that if we resort to small sounds in many cases of simple stricture of the canal, we will have better and more permanent results than are common to those who use extensively the knife and the largest of Bowman's instruments. Indeed, I believe that such practice should be condemned. Patience will often overcome obstacles in this delicate apparatus, and it is my experience that, once we have passed the smallest sound, there will be little difficulty to insert larger ones. Now, gentlemen, I have completed my task. If I have been long and tedious, I hope you will pardon me. The subjects of which I have spoken are important, not only to the specialist, but also to the general practitioner. As I have said before, these are great advance-

Digitized by Google

ments, which demand our careful examinations, and in some respects justify our indorsement.

NOTES ON CASES OF INJURIES OF THE LARGER JOINTS.

By Robert F. Brooks, M. D.

G. R. Hill, aged 43 years, a resident of Carthage, Mo., and personally known to me for nine years, states that on August 10, 1861, he received a gunshot wound in the right knee joint, the ball entering on the outer side, passing inwards and downwards, forcing patella upwards between the condyles of femur, and making its exit through the anterior half of internal tuberosity of the tibia. Dr. McCallian and others dressed the wound, and, finding the destruction of the parts so great, determined to amputate the next morning. The amputation was not made, for the reason that the doctors were arrested and sent to prison.

Dr. Omar, being the only physician left in town, very kindly took charge of the case, giving opiates internally to procure rest, and applied cold cloths to the wound constantly for nine or ten days. Drainage was kept up for four or five weeks by the introduction of a tent at the point of entrance of the wound. The exit being kept open by reason of a long, narrow piece of cartilage, seemingly having its attachment about the center of the joint, quite a quantity of small fragments of bone continued to come away for several months.

The tents were removed, however, in about four or five weeks. At the end of three weeks he was sent by rail to Ironton, remaining there about three weeks; was paroled and sent home in a carriage over an exceedingly rough road twenty-two miles distant. Notwithstanding the trials of endurance to which he had been subjected up to that time, but a few weeks elapsed before he was able to walk around on crutches. A few months subsequently, while attempting to walk without crutches, he slipped and fell, forcibly flexing wounded leg. A doctor was

Digitized by Google

called, prescribed opiates, cold water dressing, and rest in recumbent position. In a few weeks he recovered sufficiently to move about on crutches, and continued to use them for about two years, gradually recovering the use of the wounded leg. In the fall of 1864 he was assigned to duty as assistant surgeon, doing field service almost day and night for a period of six months, and being exposed a great part of the time to exceedingly inclement weather. But never at any time during service in the army, or in private practice, has he suffered any very great inconvenience, and to-day you would not notice anything unnatural in his walk if your attention was not called to it. The leg is slightly bowed out at the knee, shortening it about one-fourth of an inch. Cannot flex leg fully upon the thigh; some tenderness always present; a slight tap on the patella gives pain; the extensor muscles of thigh slightly atrophied.

Two cases were cuts into the knee-joint. One was made by an axe, the other by an adze. Both patients were vigorous, healthy young men.

I saw the young man hurt by the axe after immense abscesses had formed around the knee. When he hurt himself he was in the woods, whence he walked a quarter of a mile home. He was treated by a neighboring physician by poultices and opiates. The abscesses were so large, the pain so great, and strength so wasted, that amputation was seriously considered. It was not resorted to, however. After several months the joint stiffened and the man got well.

The one hurt by the adze was put in bed and the gash, which was deep and over an inch in length, was stitched and a water dressing put on. The deep part of the wound after several hours began to bleed, causing tension and pain so that I was forced to reopen it. The knee swelled and became very sore, but the joint did not suppurate. As long as it was so painful he remained patiently in bed. After some weeks he got up with a stiff knee. As Gross says (Surgery Vol. 1, p. 984, 4th Ed.) may happen so, in this case in less than six months from the time he began to walk, his knee had become flexible.

In the third case I penetrated the knee-joint in trying to extract a pistol ball lodged in the head of the tibia. While he

Digitized by Google

was under the ether you could hear the air suck in and out of the joint as he moved his leg.

I put his limb in a plaster of paris splint and put a rubber drainage tube to the depth of the wound. It easily drained, as I had made a large hole in the tibia. This joint did not inflame at all. It soon got well. Was it owing to the perfect health of the young man, his obedience and patience, the immovable splint and the drainage tube?

The fourth case of knee-hurts was that of a middle aged, rather dyspeptic and nervous farmer, whose left knee-joint was penetrated and torn by the calk of the shoe of a kicking horse. The locality of penetration was the lower outer half of left patella, which cracked across, the lower fragment breaking in two. I first saw the case after midnight, going into the country to visit him. I put his limb on a posterior splint and a water dressing to the wound. I did not try to close the wound. On the other hand, I tried the next morning to persuade him to allow me to put in two drainage tubes, but he only allowed one. I introduced a director and pushed it down the outer aspect of joint as far as I could and then cut for its lower end. Through these openings I pulled a rubber tube perforated in its center as Markoe directs. ("Thorough Drainage in Treatment of Wounds," *American Journal Medical Science* April, 1880, p. 321). I washed the joint through this tube. I kept him on the splint so that the knee could not move. He laid quietly for five days. I warned my patient, who was very intelligent, of the terrible accident that had befallen him, and that he must patiently assist me to prevent inflammation from arising. In spite then of care inflammation arose. The femoral muscles began to twitch, the pain at once became intolerable. This pain and inflammation continued for about six months. I tried to overcome the jerking of the femoral muscles by suspending the limb and using a weight and pulley. After using the weight for several days, my patient rebelled and took it off, saying it did no good. Abcesses pointed one after another in several places. I opened them, put in tubes and washed them out twice a day with carbolated water. There was no smell of putrefaction in the knee or room. I put a bracket of iron under the knee and on the splint,

Digitized by Google

thus having room to wash the sores. After a time an abcess pointed in the popliteal space, which I opened and into which I put a tube. It was curious that from this most dependent point, synovial fluid poured in some quantity every day for weeks.

I used opiates, of course, when inflammation and ferocious pain set in. They, however, only palliated the pain. I believe if I could have avoided them from the first it would have been better. After a while I tried to stop using them, trying whisky, belladonna and chloral hydrate. I did not succeed and he became a laudanum drinker—though not in excessive quantity. When he began to go around, by great force of will, he gradually tapered off on his dose and stopped using it. He is now fat and well, but has a stiff knee.

As to the tubes—did they do any good? Ought I to have closed the wound? In such a torn and deep injury of the tissues, without drainage, could suppuration have been prevented? As you will see, Andrews, Agnew and Barwell close these wounds with antiseptic dressings. As I understand Andrews, he puts in tubes in co-dislocations (*Internal Encyclopedia Surgery*, Vol. 3, p. 710) of the ankle at first, but not in the knee. Nor (p. 726) does he treat lacerated differently from incised wounds of joints. If suppuration ensues he then uses tubes and injections as does Agnew and Barwell.

Why should one treat an ankle one way and a knee another? Does it pay to close up a knee and await inflammation which is almost sure to come in lacerations and gun-shot wounds? Is not the thorough drainage advocated by Markoe a safer and easier treatment, even if you do have anchylosis? To return to my patient: With all the attention I paid him he did very badly. He was nervous. He worried about the abscesses; over the jerking thigh; was afraid to take the laudanum, yet the longer he put it off the more he wanted it. Thus continually fighting with himself, he continually was vanquished. Finally he assured me, that at last, he had given up to die! But I told him I thought now he would get well—and from that time he steadily improved. Somewhere Paget speaks of those who can, and those who cannot, bear operations. He says the lean do better than the fat.

Digitized by Google

Some surgeons regard the barometer, while others fear an east wind; now let us dwell for a moment on these four knee hurts. The first young man would have been a glorious subject for closure and the antiseptic immovable dressing! Youth, health and strength were his.

The next two were young, strong, and not nervous. They bore themselves with patience. They made astonishing cures. The last one, with the worst hurt, was least able to bear it. He could not be managed. In private practice you cannot always have your way. One does the best he can. Perhaps with two drainage tubes and a less impatient spirit, suppuration might not have occurred.

I will now speak of other joints. I have had two co-dislocations of the elbow. The first was the case of a little girl about seven years of age. I found the lower end of the humerus protruding from the skin, torn transversely in front of the elbow, the result of a fall from a forest tree. As no important blood vessels or nerves were torn, I resected the lower end of the humerus and laid the arm in a bran-box. As soon as the wound healed I put the arm on a hinged splint of tin. When the soreness subsided passive motion was used. She has made so good a cure that you cannot, except by close scrutiny, tell that her arm had been injured—so great is its strength, so perfect the elbow, so nice and easy is pronation and supination.

The second co-dislocation of the elbow, dislocation of radius and ulna backwards, occurred from the overturning of a heavy road wagon and the falling thence of a very heavy school girl of about eighteen years of age. She was a blonde, and as fat and round as she could be. The humerus was not outside of the skin, but presented at a transverse tear of skin three-quarters of an inch long just in front of the elbow. While under chloroform for reduction a movement and crepitation could be felt as if the coronoid process of the ulna was broken. When the joint was well enough to use passive motion you could still feel this grating. I reduced the dislocation under chloroform and laid the arm on a bracketed posterior splint, which reached from armpit to fingers. A cool, carbolated water dressing was applied to elbow. She was a perfect patient! I never gave her

Digitized by Google

an opiate and no medicine, except occasionally an aperient. I told her she must lie very still, that she needed nothing to eat. For several days she ate nothing. She then began to take a little milk and finally to take a little of the plainest food. Her elbow ached badly for a few days and was very sore, yet she slept sufficiently. The swelling was not great. The wound began at once to heal. It hardly maturated. It was soon well. The elbow joint did not suppurate, and got well as soon as many cases of simple dislocation. She recovered with considerable motion in the elbow. This was, indeed, a happy result in contrast to a co-dislocation of the ankle, which I will relate. A fat and middle-aged man fell downwards more than ten feet, alighting on his feet, making a co-dislocation inwards of his ankle with simple fracture of the fibula above ankle. Before I saw him his friends had replaced his foot. The tear was transversely in the skin, being caused by protrusion of lower end of tibia and below inner malleolus.

I put the leg in a bran box and suspended it and applied cold water to the ankle. My patient went from bad to worse. I could not quiet him. Finally erysipelas appeared in the wound. An amputation of the leg resulted.

Dr. Frank Hamilton (*Frac. and Dis.*; 2d Ed. p. 701–716) is a great advocate of resections in co-dislocations of the long bones, claiming that there will be less pain, spasm and inflammation if it is done. Especially in cases like the one just related—cases that cannot endure pain or obey directions, it would certainly be the best procedure. Agnew (11 vol. p. 220) says when the bones protrude their ends should be excised, but if they do not protrude it is better to allow them to remain undisturbed, since the damage inflicted on the surrounding tissues by a forced dislocation for the purpose of excision will do more harm than can be compensated for by the operation. As I have said (page 4) Andrews (*International Encyclopedia Surgery*, Vol. III, page 710) in speaking of the treatment of co-dislocation of the ankle is inclined to believe in the future success of very thorough drainage from several large openings, with daily carbolized injections, but as yet, want of experience makes him hesitate to recommend it. He says primary amputation or excision should

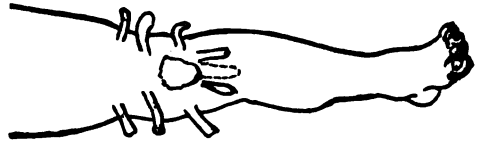
Digitized by Google

be performed. Let us see what Agnew, Andrews and Barwell say of treatment of wounds of the joints, especially of the knee.

Andrews (*International Encyclopedea Surgery*, Vol. III, p. 728) says "that in incised (and the same for lacerated wounds, p. 723) wounds of the knee-joint the cleansing, closing and dressing the wound must be done antiseptically, that the area of the synovial sac and bursa under the quadriceps extensor is little short of 200 square inches," (p. 724). "If suppuration invades the entire joint it puts the patient in serious peril of his life. In cases of suppuration he boldly lays open the wound (p. 721), drains it, washes it out daily with antiseptic fluids."

He says, we practitioners usually proceed with fear and trembling to inject a little purifying fluid, but which fails to disinfect.

He speaks of eight locations for drainage tubes, though generally he uses but six, *i. e.*, two for each cavity.



One on either side of the bursa; one on either side supra-patellar expansion; one on either side condyles of femur; one on either side ligament of patella.

Agnew's treatment (Vol. II, p. 134–6) for wounds of the joints, is an antiseptic dressing with spray, and in cases of knee-joint wounds a plaster roller from foot to upper third of thigh; a strap over wound with suspension of the limb. He considers immobilization the most essential thing. If synovitis supervenes antiphlogistics, leeches, ice bags, a large blister, aspiration; and if pus now forms outside of the synovial sac he freely lays open the joint, washes and drains it twice a day.

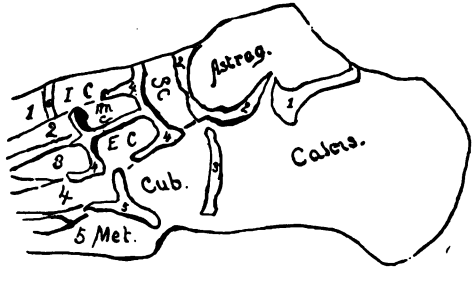
In gunshot wounds of the knee his (Vol. 1, p. 253) choice is between amputation and expectant antiseptic treatment with immobilization. Thus you see he uses antiseptics with closure of the wound.

Digitized by Google

Barwell (*Dis. Joints*, 2d Ed., p. 54) washes out wounded joints, closes, dresses antiseptically and immobilizes them. If inflammation arises, antiphlogistics, opiates and ice; considers blisters useless, and in place uses actual cautery; does not tap, but lays open the joint for pus and drains it by two incisions, one in front of the internal, and one in front of the external, lateral ligament.

I find in *International Encyclopedia Surgery*, Vol. IV, pp. 284 and 288, that Barwell now, 1883, does not use the Lister dressing. He syringes with a five per cent. solution of boroglyceride, which he finds better and less irritating than carbolic acid. The wound is then covered with several folds of lint or wool soaked in the boroglyceride solution. He says this is safer and quite as efficacious as the Lister dressing. When he makes incisions he does so at point of greatest fullness and as low as possible for best drainage. He puts in drainage tubes and washes daily.

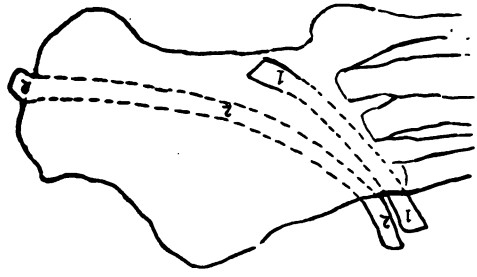
In the case related of co-dislocation of the ankle the opening below the internal malleolus was large, yet it did not drain the joint. Inflammation spread to the foot, involving the synovial sacs of the tarsal articulation, abolishing hope of cure.



In *Hamilton's Surgery* (p. 936) is given a diagram of the tarsal synovial sacs to explain how disease may spread around the tarsal bones. When you consider the extent of surface of these six sacs, you can see that an extensive and destructive inflammation may involve and rot the tarsus, as happened in a case which fell under my care.

Digitized by Google

A young and healthy man of 22 cut his foot with an axe; the gash was in front of the instep on the back of the foot. The inflammation spread to the synovial sacs of the tarsus so that all became involved. He was hurt in April; I saw him in September. Abscesses had been forming in his foot one after another. In October he allowed me to put two drainage tubes through his foot, but these were not sufficient; so in January I opened the foot over the back of the cuboid bone, took out all of cuboid but a shell, a good deal of the scaphoid, part of the astragalus, and hollowed out the os calcis, which was filled with a fatty substance. The ankle joint was not involved.



I put in two drainage tubes of rubber, both entering just beneath internal cuneiform bone—one emerging at cut over cuboid, one running clear through foot and emerging at back of heel. These tubes were perforated in their centers so that he could pinch the ends and wash out his foot thoroughly. He washed it twice a day for several months, and then once a day with a solution of permanganate of potash. He wore two tubes three months, when I pulled them out and pulled in another long one, which he wore for thirteen months, or in all sixteen months. By that time his instep felt strong, while the swelling had gone out, so that we concluded to take out the tube. No abscess has formed since, though he has strained it a few times and made it painful and swollen from walking on it too much. As he had not walked for three years when he began, his heel was so high that the heel of his shoe had to be made very high. Now the tendo achilles, however, is stretched so that he can walk with

Digitized by Google

comfort. He can walk a mile without a cane, and four or five with a cane.

Do you not think so good a cure is greatly owing to the good drainage?

DISCUSSION.

Dr. Prewitt in suppuration of the knee-joint from injury recommended free incision with thorough and effective drainage. In simple incised wounds of joints, if seen promptly he would close them and endeavor to secure union by first intention. Such cases do not necessarily inflame. The same is true of compound dislocations, for frequently we can secure healing by first intention and save the joint; stated that in lacerated and contused wounds of the ankle joint with dislocation we could hope for such results. In gun-shot wounds of joints and fracture with compound dislocation it was best to remove the bone; such treatment was recommended by the best authorities. In suppuration of joints from whatever cause, even if the injury does not open the joint, open up freely, wash out the joint and establish free drainage; of course the parts must be immobilized. Did not think it was necessary to wash or disturb the joint daily; was guided in that respect by the temperature. Said that anchylosis did not always follow suppurative synovitis; in fine, his treatment was to close all simple wounds of joints, and if they suppurated, open and drain. He recalled a case of a boy who had fallen down an enbankment, dislocating radius and ulner of the left arm backwards, tearing through the integument in front, exposing the articular surface of the humerus with the median nerve stretched over its face. The dislocation was reduced, the soft parts carefully adjusted, and a splint and appropriate dressings applied. Rapid recovery took place without the intervention of a single untoward symptom.

In another instance a man had fallen from a ladder, turning and partially dislocating the right ankle. The integument gave way making a transverse rent two inches above the joint, through which the external malleolus protruded. The parts were readjusted and appropriate dressings applied. Rapid recovery followed, no inflammatory system supervening.

Digitized by Google

THE IMPORTANCE OF LOCAL MERCURIAL TREATMENT IN SYPHILIS.

By A. H. Ohmann-Dumesnil, A. M., M. D.

IT is rather a safe assertion to make that there is hardly a physician who does not regard himself as perfectly competent to take charge of a case of syphilis. Since the time when the French called it the "Napolean disease" we have historical proof that mercury has been employed in its treatment, and it stands to-day as the "sheet anchor" of the physician when dealing with this widespread disease. Not many years ago it was the almost universal custom to require patients to employ mercurial inunctions. Latterly, however, since the advent of a numerous crop of manufactures of pharmaceutical preparations, every drug of the materia medica has been converted into a more pleasant and palatable shape. The public in general has not been slow to learn this, and the result has been a marked one in the manner of their administration. For the treatment of syphilis there have been prepared small pills or parvules, containing accurately measured amounts of the different mercurials, and of an elegant appearance. So that when a patient is to be prescribed for, one of his first requests being to have the medicine in pill form, if possible, as it is so convenient, these preperations are ordered. It is on this account and, of course, on account of other reasons that, of late, syphilis has been, to a large extent, treated almost exclusively by means of internal medication.

We know that syphilis is a so-called constitutional disease, infecting the system at large, and that all the lesions which make their appearance are but the outward manifestations of a cause at work internally. It is good logic to argue that if the cause be removed the symptoms produced by it will also take their departure. But, clinically, we find that although this is true, it is attended by one disadvantage, which is, that a greater length of time is expended and a larger amount of medicine employed than if the treatment was also local.

It is a matter of daily observation to see cases of syphilis,

Digitized by Google

treated by competent men, where the patients become discouraged simply because they perceive no improvement in the local lesions. They not only become discouraged, but oftimes life becomes a veritable burden from the fact that they carry upon visible portions of their bodies the imprint of their disgrace and imagine, not without some cause, that every one they meet suspects the presence of the trouble with which they are afflicted. The natural result in such a case is that they apply to some one else and either improve under the use of local applications or, receiving the same treatment as before, seek out some new physician or go to some vaunted resort for the treatment of such cases, and there under high doses internally and vigorous external applications improve temporarily and thus add fame and renown to a locality but little deserving of them.

This state of affairs is not to be attributed so much to the ignorance of physicians as to the fact that, of late years, writers and teachers, prominent in the profession, when speaking of the treatment of individual cases of syphilis in general seem to have taken it for granted that even the merest tyro in medicine is acquainted with the treatment of pox; and it would be difficult to find one who would be willing to acknowledge that he was not. Basing themselves upon this, their descriptions of treatment have been but hasty generalized sketches, the details being overlooked and no special stress laid upon the local applications. From this has gradually grown the idea that mercurials administered internally are not only all that is necessary, but that they are as efficient as if accompanied by local mercurial treatment, a fallacy which is susceptible of being controverted by a single experiment.

The subject of local mercurial applications in syphilis is today attracting more attention than it has done heretofore, and a great deal of light has been thrown upon it in consequence. Numerous experiments have been made with various preparations of mercury, and both the endermic and hypodermic methods have been resorted to. Ointments of various salts of mercury have all acted favorably; some more so than others, either by producing less local irritation or by acting more rapidly. And it is the testimony of many that one of the best en-

Digitized by Google

dermic preparations is the freshly made grey ointment. Calomel ointment also has its advocates; whilst the oleate of the oxide of mercury is considered irritating to quite a considerable degree. The best preparation, as well as the most cleanly for this purpose, is the oleate of mercury in which the excess of oleic acid has been removed. By combining it with olive oil, in the required strength, a preparation is obtained which, for efficiency and ease of application combined with cleanliness, is unequalled. It further has the advantage of being unnoticed, attracting no attention by its presence, as it is sufficiently transparent to permit the skin to show its proper color. In regard to the local hypodermics, various preparations have been employed; corrosive sublimate being perhaps in the front rank in regard to the frequency of use. Prof. Koebner, of Berlin, speaks highly of formamide of mercury, whilst others are equally as high in their praise of the tannate. Zeissl, Lewin and a number of others seem to be well satisfied with the bi chloride, a number of French observers are enthusiastic over the good effects observed in the use of the albuminate, and there really seems to be but very little choice in the selection of these different forms. In regard to lotions of corrosive sublimate of the formamide, of the tannate, or of other salts little is to be said, as such a limited quantity of the drug comes in contact with the lesions as to affect them only to a small degree. Besides this, there is a lesser probability of absorption than when combined with more fixed agents such as the ointments or oils. For very light lesions and as a general detersive agent in the syphilodermata Oertel's mercurial soap can be employed. The benefit to be derived from it, in a therapeutical point of view, is but small; yet, as soap must be used whatever advantage is gained from this particular kind is so much in the patient's favor. J. D. Stiefel's sublimate soap contains one-half per cent. of the bichloride, in accordance with the suggestions of Prof. Bergman, of Berlin, and is perfectly odorless and acts in the same manner.

Of course, one of the interesting questions in connection with the subject is, in what cases or to what lesions should these applications be made? And it may be answered, in general terms, that

Digitized by Google

they are applicable to all the forms of the syphilodermata as well as to the initial lesion. Should the chancre be recognized as such and present no unusual appearances, it is hardly necessary to use any but simple detergent measures. Should it, however, take on a form or process inclined to be destructive the local use of mercury will not only limit this process but it will also hasten repair. The eruptions accompanying the secondary stage are all troublesome to a greater or lesser degree, with the exception of the roseola or erythematous syphiloderm. This latter is generally so light in character that the patient will have but little or no concern respecting it, and frequently be entirely ignorant of its presence unless his attention be particularly directed to it.

Authors, as a rule, recommend us not to make local applications to this form, as the internal use of mercury is sufficient to cause it to disappear. But, although this may appear to be a very valid reason, the external use of some mercurial preparation has this advantage, viz., that it prevents the subsequent pigmentation or diminishes its intensity considerably. In the papular, pustular, tubercular, squamous and ulcerative forms we have a valuable adjuvant to the internal medication, in the use of local mercurials. And not only in these but even in gummata good results are frequently seen; whilst in the moist papules or condylomata it will often happen that these lesions will become intractable and not amenable to the most energetic internal treatment, whilst they speedily yield to local medication. It is unnecessary to enter here into a detailed account of the various manners in which to employ these local measures, nor would it be within the province of such a limited paper to give minute descriptions of the different local conditions requiring such treatment and in what particular stages it would prove most beneficial.

There is one point, however, which ought not to be omitted, and that is a mention of the fact that these limited local applications exert their influence not by virtue of being absorbed and disseminated through the system at large, but because they act locally and within a very limited area. This fact has been demonstrated again and again. It has been found that local

Digitized by Google

troubles existing upon the arms will not yield to local medication applied to the soles and feet, and yet lesions of the leg were benefitted to a considerable extent. In cases of condylomata only those in whose immediate neigborhood hypodermic injections were made, dried and disappeared, others at comparatively remote points remaining until treated in a similar manner. I have found that in suppurating tubercular lesions, only those to which the applications were made yielded, and others had to be submitted to the same process before any amelioration took place.

It may not be out of place here to mention the fact that frequently indurated or even enlarged lymphatic glands will be considerably reduced, even to their normal size and consistency, by the local use of mercurials. The same is true of the pigmentation caused by syphilitic eruptions. Although this latter will not always yield to the topical use of mercury, it will very frequently diminish, and the intensity of the color which is often so distressing to the patient will be toned down to a much lighter shade.

In conclusion, the writer would state that no attempt at originality has been made. That the object of the paper is merely to draw a little more attention to one of the details of the technique of the treatment of syphilis an operation which, the more it is studied, the more complex it appears. To reduce our art to a science is what we are striving to attain, and the only method to arrive at this much-to-be-desired result is by the study and observance of the minor details.

REPORT ON THE COLLECTIVE INVESTIGATION OF DISEASE.

By B. F. Hart, M. D., Brownsville, Mo.

FROM fifty-one printed circulars sent out on 7th of April last to the various sections of the State, asking certain questions as to the general health, and more especially pertaining to pneumonia, thirty-one have been returned, answered gen-

Digitized by Google

erally in a satisfactory manner, an *analysis* of which is herewith presented. The answers come from leading physicians located at the county seats of thirty-one counties, rather fairly distributed over the State, twelve being on the north side and nineteen on the south side of the Missouri river. The counties responding on the north side are, Clay, Monroe, Livingston, Randolph, Boone, Carroll, Buchanan, Davis, Marion, Callaway, Macon and Pike; those on the south side are, Jackson, Johnson, Pettis, Saline, Cole, Franklyn, Jefferson, Bates, Webster, Crawford, Howell, Reynolds, McDonald, Madison, Morgan, Jasper, Christian, Dade and Carter. While it would have been more satisfactory, of course, to hear from every county in the State, it will be seen from a glance at the map that these thirty-one counties are so distributed over the State as to not *unfairly* represent it as a whole. The responses received represent individual opinions and experiences mostly for the past year, although in many instances they claim to reflect the medical views in those sections. To the question, "What has been the health of your county for the past twelve months?" eigthteen answer good, some of whom say it has not been so good for twenty years; ten say medium or average, and three—Jefferson, Carter and Crawford—not so good as usual.

The conclusion naturally follows from these answers, that the health of the State during the past year has been exceptionally good, for no doubt the relation would hold about the same as to other counties not heard from; and this fact is at least of some importance. The question, "What diseases most prevalent each season?" seems to have comprehended too much for the space given, as the answers are not so satisfactory as they might have been; still it is found on analysis that malarial fevers in the latter part of summer and the fall, and lung troubles, principally pneumonia, in winter and spring, have been the prevailing diseases in nearly all the counties. Frequent mention is made of cholera infantum, dysentery and other intestinal troubles in summer months; also of rheumatism, neuralgia, influenza and tonsilitis in the spring. Contagious infectious diseases of children, as usual, have been quite prevalent.

In answer to the question, "Give the seasons most sickly, in

Digitized by Google

numerical order," it is found that sixteen make fall the most sickly; seven summer, two spring and one winter. Several decline to answer the question. The answers generally run, Fall, Winter, Spring, Summer, with an occasional variation, by Summer preceding or following Fall. From personal experience it would seem that the latter part of winter and early spring ought to rank, if not first, at least second.

To the question, "What epidemics have prevailed and when?" Thirteen respondents say none; twelve mention epidemics of the usual infectious diseases of childhood, small-pox and Lincoln itch, once each, and typhoid fever being noticed two times; four fail to answer, and two misapprehend the question. From this statement it appears clear that no serious epidemics can be placed to the account of the State for the past year, at least as a general thing. Some of the reports declare there has been no special epidemics for years. "Have diseases been of a mild or severe type?" is a question that brings out the fact that most all diseases have been unusually mild. Twenty-four answers say mild, excepting only typhoid fever in Jasper County; three say medium or average; three counties—Jefferson, Crawford and Saline— speak of diseases having been severe or moderately severe, and one misapprehends the question. To the question, "Have changes in temperature, a greater or less amount of vapor in the air, exerted any effect in the production or fatality of disease?" Twenty declare that damp cold increases sickness generally, and makes it more severe, except three who think dry cold more productive of disease; four notice no such effects, and four say they do not know, or fail to answer. That damp cold is a potent factor in the production of disease, there can be no doubt.

Questions Pertaining to Pneumonia.

First question.—"To what extent has pneumonia prevailed the past year, and in what month or months?" In response, twenty-three say to a limited extent; eight say, as usual or to considerable extent, in the months of January, February, March and April, March having decidedly the best pneumonia reputation. Marion County makes the point of being protected by forest wind-brakes, and that the adjoining prairie county on the west,

Digitized by Google

unprotected from the cold winds, has four times as many cases of pneumonia.

Second question.—"More or less prevalent than other years?" To this question, nineteen answer that it has been less; eight say, about as usual; for the three counties of Pike, Jefferson and Crawford it is claimed to be more, and one fails to answer. One of the answers says there has been less than in thirty-five years, and another less than in sixteen years. The past winter and spring has been cold, damp and changeable, just the weather, in fact, that appears to be most conductive to the generation, severity and fatality of pneumonia; and yet, a conclusion based upon these answers, most certainly proves the contrary. Why the past winter and spring should be so healthy in this respect, when meteorological conditions seem so unfavorable, is a problem that calls loudly for solution.

No question but that the explanation could be given very readily if it were only known how to proceed; otherwise, it must be admitted, contrary to preconceived opinion, that damp cold exercises no influence on the disease, at least for the worse.

Third question.—"Was it mild or malignant in tendency?" Answers to this, by twenty-five, say mild; returns from the four counties of Davis, Randolph, Pike and Crawford say it was severe; and in two townships in Livingston County it is claimed to have been malignant, from complications. These answers, being almost unanimous in favor of its mildness, still go further to prove that it has been uninfluenced in gravity and grip by the past inclement winter.

Fourth question.—"What form mostly, lobar, lobular, and in which lung?" Return is given by twenty that it is mostly lobar, and sixteen think it occurs more frequently in the right lung, and usually in the lower lobe; four decide for the lobular form, and four for the left lung; four say it occurs equally in both, one having discovered that it is more fatal in the left lung; seven fail to remember or leave the question unanswered. Since the lobar or croupous form occurs most generally in adults, and the lobular or bronchial form is as strictly confined to children, it follows from the above showing, that the disease has selected its victims nearly exclusively from adult life, or that it has failed to be properly diagnosed in children.

Digitized by Google

Fifth question.—"Has it been amenable to treatment?" This question is answered in the affirmative twenty-seven times; in the three counties of Davis, Livingston and Monroe it was more difficult to manage, and consequently more fatal than usual; one fails to answer. One gentleman says he does not know about the effect of treatment, but nearly all cases get well. Another expresses the opinion that the mortality of the disease has been fearfully overrated.

Sixth question.—"What plan of treatment mostly in use?" A mixed treatment in which opium, arterial sedatives, mercury, quinine, diaphoretics, expectorants, alcohol, ammonia, fomentations and blisters, to meet various indications in the different stages, is given fifteen times; expectant treatment is given nine times; five say supporting and stimulant treatment with pure air, and two pass the question in silence. From which showing, it is plain that the profession is about equally divided; one-half in favor of making an active warfare on the strongholds of the disease; the other half, by their acts, admitting that it is just as well to submit the question to the efforts of nature, simply determining to give it a fair show, and a little help when it manifests signs of being unequal to the task; the disease meantime marching steadily along in most cases to a favorable termination, regardless equally of interference or non-interference. The practical lesson in this connection, not only in reference to pneumonia but other diseases as well, for every physician to well consider is, whether in the great majority of cases too much credit is not attributed to the effects of medicine, and too little, by far, to the vis medicatrix naturæ.

Seventh question.—"Have alcoholic stimulants been in vogue much?" To which question fourteen answer, yes; fourteen report the use to a limited extent, principally in depression, or in the last stage, and in old, intemperate and debilitated persons; and three declare it inadmissible or not used. Some, while not considering it the sheet anchor, place much reliance on its efficacy; others, with as good opportunities for observing, cast a doubt upon its claims as an agent of potency and benefit in the treatment of the disease, unless it be to meet rare and uncommon indications.

Digitized by Google

Eighth question.—"What reliance on blisters, and are they generally used?"

Twenty answer, not used, or but little, and consequently no reliance on them; eleven say they are used, and great confidence placed in their good effects in the first stage to abort, and in the second to promote absorption, or for stimulating effects. Since the days when infinitesimal medication, with its little pellets and unlimited dilutions, drove heroic medicine into the background, cantharidal vesication has been gradually losing its once strong hold on the professional and popular mind. And now, in this report, a realization is felt of a loss of confidence in, and a decadence of this long established and well tried medical agency. The question naturally arises, why is this so? Because venesection almost to exsanguination, mercurialization to the loss of teeth and shattered constitution, tartarization to the point of turning inside out, to say nothing of active, endless purgation as practiced in the long ago, have been justly condemned in the light of sounder medical views, and relegated to the department of worse than worthless therapeutical procedures, it is no argument against the valuable cantharidal vesicant which has been weighed in the balance and *never* found wanting in many a well contested battle against disease in the centuries that have rolled away into the misty past. Fashion, in this age, is the touch-stone that exercises a controlling influence in the make-up of human life and its surroundings. In the field of medicine it is little less potent than in other departments; indeed, the very *pillars* of philosophic therapeutics are seen to be threatened continually in the everlasting catering to public prejudice and caprice. Who that has met therapeutic indications, with ipecac emesis, twenty or thirty years ago, will dare say that any other medical agent ever performed its part so actively and so well? Is it not a positive fact that nearly all catarrhal troubles may be aborted in this way in two or three hours, which requires as many weeks to subdue them often, under fashionable treatment? For very few are unconcerned enough nowadays to risk reputation and material interests by introducing such practice into good families. This tendency is seen on every hand in the disposition to conform in a certain degree to

Digitized by Google

homeopathic requirements. Even so good a thing as vaccination, which it would seem ought to appeal to the common sense and judgment of every intelligent person, whether medical or not, is now stemming the tide of tremendous opposition, both within and without the profession. With all due deference to those entertaining different views, it is confidently believed that just in the same way and from the same cause, cantharidal vesication has lost favor with the profession; and not from any inherent shortcomings of therapeutic action to meet indications assigned it by the experience of the ages as recorded in medical literature. Having used it time and again in every stage of this disease, for its abortive, derivative and depletent effects through which the disease is often arrested, or rendered milder in every respect, absorption being promoted, and this effected, too, better than with other remedies, without producing evil consequences, the conviction remains strong and overpowering that, this remedy has been condemned prematurely and unjustly to satisfy the demands of popular prejudice because of the little pain and inconvenience thereby entailed, although this may be reduced to insignificance, exercising care under the proper use of the remedy.

Ninth question.—"What confidence in mercury and arterial sedatives, and are they much used?" Answer comes from twenty-one that no mercury or but little is used, and no confidence in it; seven use it confidently, and three in small doses in the first stage. Sedatives are used by nineteen with more or less confidence, some deeming them to be indispensable, while the other twelve have no confidence and use them but little or not at all. Mercury has had a good long rest, has received any amount of sound, well merited abuse, and is still in the back ground, as shown by these answers; but if the signs of the times give a true forecast, it is fast coming to the front again, as seen in the prominence recently given to the chloride and bichloride in the different countries. Even now calomel in large doses is given in pneumonia for what is claimed to be its sedative effects, and has many advocates in New York City, who laud it very highly. Sedatives a few years ago seemed to be the *sine qua non* in the treatment of pneumonia. From this report it is now

Digitized by Google

evident that they are on the wane. Never having been able to appreciate the philosophy that reducing the heart's action would cure the disease, but acting on the reverse proposition of curing the disease by meeting the plain indications in the case, and letting the pulse fall as a natural consequence, personal experience with the sedatives has been insignificant, and the mortality roll leaves no occasion for regret at this late day.

Tenth question.—"What of ammonia, quinine and venesection?" To this question twenty-six reply that ammonia is used more or less freely; five that it is not used; twenty-nine that quinine is used with much confidence, and the other two fail to answer; twenty-three disclaim any use of venesection; three that it would be used if indicated; and five pass it in silence. It appears from the answers given that quinine is used more or less in all the stages; more frequently and far more extensively than ammonia, which is in striking contrast with the use of the article in England, where it is shown in the second volume of the Collective Record that ammonia is used more frequently than any other one agent, excepting alcohol. Every year increases the number in this country who confidently place their trust in ammonia, carbonate or muriate, not only for its stimulant action, but from its reputed power of preventing thrombosis of the heart and favoring fibrinous absorption where there is consolidation. That venesection is no longer cherished as a therapeutical procedure in this or any other disease, after having a reign at one time almost supreme, is not astonishing to any one who is posted on present medical thought. Of all the pretended philosophic expressions of scientific medicine, it stands out conspicuously alone as being the most unsound, and it is not probable that in the light of present and future research its use will ever be revived.

Eleventh question.—"Is it regarded as a general fever, or simply as a local inflammation?" As a local inflammation, seventeen answer; thirteen say a general fever, and one is uncertain. This shows that there is still a majority of the daily toilers in the medical field who hold to the time-honored notion of a local parenchymatous inflammation. Only a few years ago, a medical man would have been hooted out of the profession for advo-

Digitized by Google

cating the infectiousness of pneumonia; now, however, the doctrine is becoming quite popular, and every year gives it additional strength and countenance by many of those who take high rank in the profession. Recent discoveries in germ-life, and its established etiological factor in nearly all diseases not of traumatic lesion or varying temperature, tends to throw new light on this question of a positive kind.

Many eminently scientific men have discovered a micrococcus which is nearly always found in pneumonia of the croupous kind, and very generally in broncho-pneumonia. It is supposed to hold the relation of cause to effect, for in many instances where inoculation has been resorted to with the coccus, pneumonia has invariably resulted.

At the German Medical Congress, held at Berlin last year, this whole question was thoroughly discussed, and the infectious theory strongly advocated by such lights as Jurgensen, Frankel, Friedlander, Gerhardt, Frantzel, Nothnagel and others. This doctrine seems to be fully accepted in Germany, and to a large extent in France. England is a little more reluctant to give in adhesion, for the first committee report on collective investigation, says: "We think the evidence before us is insufficient to support the doctrine that pneumonia is a specific fever, whose chief local manifestation is in the lung. It may be taken for certain that it confers no protection upon the individual, but rather an increased liability to future attacks." In a subsequent report, however, the committee have changed front, and declare that the infectious character of pneumonia, in some cases, is established, and that it is in very rare instances contagious. The venerable Dr. Flint,, of New York, has held to the infectious theory for some time; and Dr. Prudden recently presented to the New York Pathological Society specimens of the coccus of lobar pneumonia, stating that he had made examinations in twenty-four cases, and found the coccus in the tissues or the lungs in every instance; and further, that in ten specimens examined of broncho-pneumonia in children, a similar coccus in all respects was found. It is more than probable that pneumonia may be produced by more than one cause; in fact, there can be little doubt on this question, since, in its essence, it is a local in-

Digitized by Google

flammation, with fibrinous effusions, which is the result simply of an irritant action. In measles and other irruption diseases it is well known that the mucous membranes suffer as well as the tegumentary surface, and often terminate in acute inflammation. It is no less demonstrable that epidemic erysipelas often makes its attack on the lung and the different serous membranes, before it is manifested externally; and, indeed, this is by far the most fatal form of that disease. But that meteorological conditions, in some way not altogether plain, are sufficient to set up pneumonitis as a purely local disease, is still the prevailing opinion among English speaking people, is quite certain. The profession generally in Germany hold to the plurality cause, and allow that atmospheric changes may be the cause of a small per cent. of pneumonia, but that the great majority of cases are attributable to the micrococcus.

England holds exactly the opposite view, as disclosed in the last collective report, believing that only a small number of cases are due to infection and contagion, and the balance are local inflammations originating in cold, wet and exposure. The medical mind reflected in answers herewith reported shows this State to entertain a similar notion.

Twelfth question.—"Is it infectious; if so, what evidence?" This question is answered negatively twenty-nine times, which is almost unanimous; one answers, by some of us; and one says, not generally, that the seeming appearances are owing to bad hygiene. Properly, this question should have been qualified by contagious, but it is very clear its meaning was well understood and answered accordingly. Thirty years ago the terms infectious and contagious were synonymous, except that infection meant a little more catching than contagion itself. The terms, to some extent, are still used synonymously, but according to present usage, infection is applied to all germ or zymotic diseases, regardless of whether they are contagious or not; and hence, if pneumonia is an essential fever, it is infectious. That pneumonia is not a contagious infectious disease, is settled beyond all controversy, it would seem, by the responses to this report; and it is fully believed that time and fuller research will bear them out in this conclusion.

Digitized by Google

Thirteenth question.—"What effects from dry or damp cold?" Damp cold is favorable to its production and severity, comes from fifteen; dry cold, say three; both damp and dry cold, answer two; and eleven have not observed sufficiently to answer. It will be seen that fair observation on this point is overwhelmingly in favor of damp cold, which accords with preconceived notions in reference to the matter with comparatively few exceptions. Dr. Seibert, of New York City, has thoroughly investigated this question not only in this country, but from an analysis of observations taken in foreign countries; and in several able articles contributed to periodicals recently, he gives a very clear showing that meteorological influences of cold and damp play a conspicuous part as the necessary conditions in the production of pneumonia. This accords with the collective investigation in England. And it is a notorious fact, that the prevalence and fatality of the disease in the State of Texas is connected directly with, and produced by northers. More definite observation on this point, however, would certainly be desirable.

Fourteenth question.—"Average length of treatment?" The average for twenty-six answers place it at eleven and one-quarter days, the lowest putting it at six days, and the highest at sixteen days; five have not observed closely enough to respond to the question. One gentleman remarks that fatal cases reached their termination in one of the seriously afflicted counties by the eighth day, which quite agrees with statistics furnished on the subject by the New York Hospital from 1877 to 1885. The course and duration of the disease is determined, no doubt, by several circumstances, such as the exciting cause, hygienic surroundings and constitutional peculiarities.

Fifteenth question.—"What percentage of deaths?" Fifteen respondents report all the way from one to ten per cent.; ten say very low, or they have no way of telling; Monroe puts it at twenty-five per cent. for this year, but usually it is only five per cent.; two say, no deaths during the year, and one of them, none for eighteen years; and four fail to answer, one remarking that lobular pneumonia has a large percentage of deaths, and the duration of disease much longer. Dr. Holt, of New

Digitized by Google

York City, in charge of the children's department of the Dispensary, has recently stated in an article that the death rate of broncho-pneumonia is about forty per cent., and in the lobar variety only five per cent. The mortality rate for hospital records is generally high, not only in pneumonia, but other diseases as well; and this is easily accounted for in the personal history of patients, unsanitary surroundings, and air literally swarming with bacterial life, as has been demonstrated by a Parisian physician within the past year.

A report recently made of two hundred and fifty cases of pneumonia, treated in the New York Hospital, shows a death rate of thirty-seven per cent. The British Collective Record of over one thousand cases shows a mortality rate of twenty per cent. Personal experience warrants the belief that the percentage of deaths in a country practice, under skillful treatment favored by hygienic surroundings, would not exceed five per cent., and might even fall below that, where there is no malignant tendency through epidemic influence.

Sixteenth question.—"Has the general use of gum shoes and coats tended to lessen the disease?" Answer from fourteen respondents say yes; four say no; and fifteen cannot answer, because their attention has not been directed thereto. In many places men, women and children go protected from head to foot, while in some others, rubber goods have not come into very general use.

Boorhave's aphorismal legacy—"Keep the feet dry, the head cool and the bowels open"—holds good as well to day as when uttered. It is a striking and telling fact, that shoes wear out and get leaky, and winter clothes thread-bare, just at that season of the year—March—when pneumonia is most prevalent and most fatal. Connect these two facts together as cause and effect, and it may readily be seen where rubber goods come between them, and greatly lessen pneumonia, just as fourteen gentlemen in the returns affirm. Admitting that it may be injurious to wear gum shoes in the house all day so as to keep the feet in a damp condition, thus favoring colds, it is contended, with the faintest show of reason, that the abuse of a good thing is no argument against its legitimate and proper use. Is it not in ac-

Digitized by Google

cord with common sense, and the experience and observation of every observant person, whether medical or otherwise, that exposure to cold, or cold and damp, the keeping on of wet clothes in chilly weather, allowing the feet to remain cold and wet for some time, is one of the prime factors in the causation of pneumonia? This condition is brought about, of course, by unbalancing the circulating and nervous forces through the abstraction of heat. It must be admitted, then, that exposure to cold with cold, wet feet, is an exciting cause in the disease in the great majority of cases. Should the coccus theory prevail, and it be established that infection is the principal and leading cause, still cold, damp and exposure, will remain as the essential predisposing cause.

Further light and observation would not be out of the way on this particular phase of the question.

Having now briefly noticed the collective investigation inquiry, a few additional general thoughts are offered. Other plans of treatment besides those mentioned are strongly advocated in later days. The antipyretic plan takes high rank with many leading physicians, the most popular internal articles of which are antipyrin and kairin, yet a number of other newly discovered antipyretics are used. With becoming modesty it is believed and declared that this treatment is false in theory if not in practice. Heat, like air and water, is quite necessary to the ends of life controlled in due bounds; but under other circumstances is often very destructive. Heat is a life-giving principle and its artificial application often performs a valuable part in the prevention of inflammation and breaking up of congestion through the action of this principle in causing the blood corpuscles in the capillaries to move onward when they become stagnant and threaten diseased action. Yet, like cyclones and floods in conflagrations and even in febrile actions, heat becomes quite destructive and ought to be moderated. Do antipyretics effect this in some mysterious and unaccountable way, or do they act on the very simple principle of antisepsis or antifermentation? Such is believed to be their mode of action; for all or nearly all of the internal antipyretics are antiferments; and hence it follows that they would be indicated in those cases of coccus origin.

Digitized by Google

Thus it will be seen that while the theory is wrong, the practice may be right; in the one case a symptom is treated, in the other blows are aimed directly at the seat of the disease—the cause.

Some practitioners claim to have found much benefit from the use of antipyretics in this disease, and others have declared them to be worthless. Again, antipyretics obtained from the cold bathing on the plan of Brant and Liebermeister is very strongly advocated by men of ability in European countries. Dr. Chaumier, of France, says: "Statistics prove that pnenmonia is more curable without drugs than with them, and that children always recover from pneumonia when drugs are withheld." He further concludes that the mortality may be lessened by cold baths, and that he has frequently used them in all stages with good effects and no danger.

Dr. Flint and some others of note in this country have tried and recommended them in certain cases. But it must be confessed that such treatment looks and is believed to be hazardous. It certainly would be better to effect the same end through warm sponging, hot fomentations and the internal use of the hot infusion of bone-set, and dover's powder, thus combining at once an anodyne and diaphoretic effect by which the extra amount of heat is carried off with the cutaneous exhalation.

As shown by statistics, the death rate in pneumonia is very low under favorable treatment and healthful surroundings. There is no question, however, but what it may still be lowered, especially in large cities and hospitals, if it should be established, beyond doubt, that the principal cause is a micrococcus. In that case there would be two lines of treatment open to prophylaxis. First: In the cultivation of the various microbes it has been discovered that a very little change in the pabulum upon which they feed exercises a wonderful effect, either hurtful or favorable in their development; a very little abstraction of some element—a salt for instance—or a very little addition of some other kind is quite sufficient often to prove deleterious and even fatal to them. Continued cultivation and the consequent familiarity with the life-history of the various germs will ere long place the profession in the possession of this knowledge;

Digitized by Google

and then the way open to the prevention of disease will be broad, straight and certain. To meet the case it would only be necessary to administer the germicidal remedy as a prophylactic; or in actual disease as an anti-ferment; in either case being fatal to germ-life. The remedy is not always a caustic one, and may not affect man at all injuriously.

Second: If the cause of pneumonia should turn out to be contagious, as some suppose, then vaccination with attenuated cultures after the manner of Pasteur will be quite sufficient to meet the coccus on its own ground and give it the go. Vaccination with cow-pox virus is the utilization of this same principle. Pasteur has demonstrated to the satisfaction of the Academy of Medicine in Paris, France, and a committee of its ablest men have verified the same, that the virus of one of the most fatal diseases—hydrophobia—may be cultivated by attenuation until it is practically harmless, and perfectly safe and sure against the wild, uncultivated form in its protecting efficacy. The microbes of several other contagious diseases have been likewise cultivated and used to afford protection by removing the susceptibility to the natural course of those diseases. This idea was put into practice long ago, when inoculation with small pox virus was first introduced. The virus inoculated, while not attenuated, was so insignificant in quantity to that taken in the natural way that no serious consequences resulted from its use; yet it gave protection. The small-pox virus having been attenuated by passing through the system of a rather insusceptible animal, the cow, just as Pasteur operates with hydrophobia virus on the monkey and the rabbit, gave and still continues to give protection in the same way by vaccination and revaccination. Other modes of attenuation besides the one mentioned are practiced with good results. These being demonstrable facts, it is fair to conclude then that all those diseases which have been most fatal and most dreaded by mankind in the past will at no distant day be shorn of their terrors, and that the principal business of medical men will be to prevent rather than to cure disease. This is no chimera of the brain, engendered by perverted and distempered imaginings, but is in fact and in truth strictly in accord with the developments of latter day investigations. It is near-

Digitized by Google

ing the fulfillment, indeed, of the fondest hopes and highest aspirations of the fathers in medicine; a realization of the dream of the medical enthusiast in all ages since medicine had first a name and recognition. In conclusion, it may be said that this collective investigation of disease is in the right direction, and the good that it is likely to do in the advancement of medical science will surely surpass all other moves in that direction, since the united and concentrated action of the entire fraternity can hardly fail to unravel the intricacies of disease. While this report on the subject is not perfect, it is about as good as could be rendered under the many disadvantageous circumstances. It has drawn out some facts, felt the pulse of the profession, and set the ball to rolling. All enterprises must have a beginning, humble though they be; and like the giant oak that springs from the little acorn and towers aloft in the mid-air, so let us hope will be the outgrowth of this unpretentious effort at collective investigation of disease. In order to succeed, however, and to make it thoroughly practical and profitable, an organization should be formed co-extensive with the State, every member of which should keep a daily and accurate record of some disease previously set apart, answer definitely certain questions propounded, make all needful observations at the bedside, and report to the chairman of a central committee barely in time to be made up and presented to the annual State meeting.

The rapid growth of this investigation of disease as a distinct entity is truly wonderful and rather phenomenal. Having originated a year or two ago in the British Medical Association, it extended to Germany last year, then to the International Medical Association, crossed the broad Atlantic and found a foothold in New York City and State, New Jersey, Connecticut, this State, and perhaps others, and finally waked up the staid old American Medical Association.

Every order of the medical kind seem disposed to give it a show; indeed, it appears to take like wild-fire, and spread like bad news. Evidently more facts would be developed and the organization more systematic and thorough in its efficiency to begin with counties and cities and extend to state, national and international co-operation, as seems to be the order of the day,

Digitized by Google

thus making of the profession throughout the world one common brotherhood, of live, active workers in behalf of medical science and disease-stricken humanity.

THE PREPARATION AND USE OF THE SIMPLIFIED ANTISEPTIC APPARATUS.

By Willis P. King, M. D., Sedalia, Mo.

THE question of *antisepsis* is one that has occupied a large share of the attention of medical men for several years past. This is especially true since Mr. Lister, of London, placed his elaborate and somewhat complicated apparatus before the profession. There were many objections to Lister's apparatus:

1. It was complicated and costly.

2. It took about as many persons to successfully manage it as it did to perform and assist in performing the operation.

3. It was liable to get out of order in the midst of an operation.

4. The substance used as an antiseptic, or germicide (carbolic acid), did not prove, after careful investigation, to be a germicide in the strength generally used.

Late investigations, by Mr. Winter Blyth, show that [1] "a one per cent. solution of pure carbolic acid in water seemed to have no influence on anthrax spores, not even delaying their growth. Even after soaking for twenty-four hours, in a ten per cent. solution of carbolic acid, the anthrax spores inoculated into a guinea-pig killed it in two days with typical anthrax poisoning. Spores soaked for twenty-four hours in undiluted carbolic acid did not develop, but they did so after six hours' soaking in a twenty-five per cent. solution in alcohol."

Dr. Sternberg "has diligently collected nearly all that has so far been learned regarding germicides, and has added much by his own special investigations. A perusal of his work will show

1. Medical Record, January 17, 1885.

Digitized by Google

that there prevail a good many delusions regarding antiseptics. Attention has been called to some of these by 'Medicus,' who says:"

"[1] Carbolic acid (1 to 200) kills bacteria in pure fluids, and septic germs in active growth, but a ten per cent. solution will not kill them in putrid fluids. Dissolved in alcohol or oil it is useless, and will not kill germs in a hundred and ten days."

So much for carbolic acid—Lister's great antiseptic. Any one who has ever handled instruments that have been passed through a *five per cent* solution of carbolic acid knows that it will destroy the living epidermis. A so-called antiseptic which, in a five per cent. solution, will destroy the epidermis, and, in a ten per cent. solution, will not destroy bacteria, is certainly neither reliable nor safe.

Dr. Miguel has experimented with different substances that are supposed or known to possess antiseptic properties and comes to the following conclusions in regard to two of them: "That bacterial life is impossible in a solution containing one forty-thousandth part of biniodide of mercury, or one fourteen-thousandth part of the bichloride."

This seems to be exceedingly dilute, and it is somewhat hard to understand how it can be possible, and yet, it is asserted by some, that "the study of the different characteristics of particular micro-organisms shows that agents which destroy the life of one form may not affect seriously that of another."

But, as it is not the object of this paper to go into the question further, but rather to place before the members of this association the methods now resorted to by some of the best surgeons in our own country, in surgical operations and the treatment of surgical cases, I will let the above suffice as an introduction.

Most operators, who believe in antiseptics at all, seem to have settled down to the conclusion that the bichloride of mercury in solution is the best for their purposes. I have seen, as I have no doubt you have, many references in medical journals of late years, to the fact that "Professor so-and-so uses the bichloride

1. Medical Record, January 17, 1885.

Digitized by Google

of mercury in a 1 to 2,500 or 1 to 3,000 as an antiseptic in his operations."

The important questions with me were: "But, how does he use it?

What does he do with it?

What precautions are necessary in its use?" I have no doubt that every thinking, progressive member of this body has asked the same questions.

About the first of December, 1884, I went to New York City and remained there two months, spending about seven hours each day at the colleges, clinics and hospitals.

Here I had an opportunity of seeing antiseptics used by men who are strong believers in their efficacy in destroying micro-organisms, and here I learned the details of the "preparation and use of the simplified antiseptic apparatus." It was while I was in New York that Dr. Wm. T. Bull, one of the best of the younger surgeons in that city, took out the bowels of a man who had received a gunshot wound, sewed up five or six bullet holes in the intestines, returned them and closed the abdominal opening (all done under antiseptics) and the patient recovered without a bad symptom. I did not witness the operation, but it is well authenticated; and, as astounding as this case may seem, I saw many things that might be considered just as remarkable.

In the surgical clinics of Professors Jno. A. Wyeth and A. G. Gerster, I saw several amputations of the thigh under the use of antiseptics, where the stump was dressed and not opened for from fifteen to twenty-one days. The patients had little or no elevation of temperature, no acceleration of pulse, took nourishment with relish, slept soundly every night, suffered no pain—were as comfortable to all appearances, indeed, as if nothing had happened them.

I saw the female (cancerous) breast removed in three instances, the axillary space entered and the glands removed, in all of which cases the axillary artery and vein were exposed for three inches, the wound being twelve or fifteen inches in length. These wounds were all closed and dressed antiseptically, and when the dressings were removed they were found to have healed in their

Digitized by Google

entire length "by the first intention" and without inflammation. There was no fever, no acceleration of pulse and no pain in any of these cases; and I venture the assertion that there was not as much as a quarter of a grain of morphine given to all of these.

In the amputated stumps and the extirpated breasts there was not a drop of *pus* to be seen when the wounds were dressed.

I saw the abdominal cavity entered about twenty times in the clinics of Wylie, Hunter, Munde, Emmett, Thomas and others. The cases embraced operations for the removal of ovarian tumors, cancerous tumors of the ovary and bowel (two cases) and "Tait's operation." The two cases of cancer died from shock and exhaustion. All of the other cases recovered without a bad symptom—no fever, no acceleration of pulse, no pain, no sleepless nights, no *pus*, no morphia.

It has occurred to me that my medical brethren in Missouri, who have not practiced antiseptic surgery and who are not acquainted with the details of the *antiseptic apparatus*, would like to have those details. Hence this paper.

I must apologize for the explicit and simple manner in which I give those details. I give it to you as I got it. To know half of this matter is to know nothing; or, at least, to not know enough to be able to use it.

The *simplified antiseptic apparatus* consists of:

1. The solutions.
2. The sponges.
3. The ligatures.
4. The drainage tubes.
5. The protectives, (gauzes) bandages, etc.

The sublimate solution is the most important of all. In irrigating all wounds of the body, whether made by accident or by the surgeon (excepting wounds of the large cavities) we may use the solution of *corrosive* sublimate in strength varying from 1 to 500 of water, by weight, to 1 to 3,000. It is an established fact that a 1 to 3,000 sublimate will kill all atmospheric germs, and a 1 to 5,000 will cripple them so that they will not proliferate. A 1 to 500, or even a 1 to 1,000 sublimate solution should never be used excepting in suppurative joint and bone disease, *and then only with the Esmarch bandage on, so as to prevent absorption* and *fatal poisoning.*

Digitized by Google

In operations where the large cavities are entered, it is sufficient to wring the sponges (already rendered *aseptic*) out of the 1 to 3,000 or 4,000 solution and wipe the cavity and bleeding points within it with the sponge.

To prepare the sponges, first take fine surgeon's sponges and run them on a string and suspend and whip them to get the sand out; then, if possible, put them under a running water spout or hydrant for half a day; otherwise put them in water and wring them out several times. Then put them in a five per cent. solution of permanganate of potassa for ten minutes; wring them out of this and put in a solution of oxalic acid 1 to 50 of water for half hour; then wash them well. Now wring them through a one to five of Labaracque's solution of chlorinated soda; then through a 1 to 2,500 or 3,000 sublimate solution and put them into jars still damp and keep them there. After being used they should be put through this process—beginning with the permanganate of potassa again.

If the wound is very vile the sponges should be thrown away. As to the ligatures, nothing but catgut is used in this process, excepting in the abdominal cavity. Here (in the abdominal cavity) catgut is not deemed to be trustworthy on account of its being absorbed so much sooner than silk. The catgut is rendered aseptic by being kept in *juniper oil.* It is ready for use after being in this oil forty-eight hours. If left in juniper oil for several months it is said to last about three days longer before it is absorbed.

The glazed violin and guitar strings are rather too hard and unhandy for use. All wounds, flaps, etc., should be stitched with this; the whip stitch being preferred and making the nicest result.

All arteries (outside of abdominal cavity) are also tied with it.

I saw the femoral tied with it in three instances and there were no bad results.

L. A. Keller & Co., 64 Nassau street, New York, import catgut for surgical purposes and sell it for less than one half of what I have been able to buy it elsewhere.

The Gauzes for Dressings.

Take cheap, slaizy cheese cloth which costs two or two and a

Digitized by Google

half cents per yard and boil it in clean water with soap or alkali for three hours; then wring out and dry and put in a one to five Labaracque's solution for forty-eight hours; then wring out and put in a 1 to 500 solution of corrosive sublimate and keep it there. Salt must be added to this solution occasionally in order to keep up the equivalents of chlorine and to prevent the deposit of calomel.

Drainage Tubes.

These are bone, rubber, catgut and horse-hair. Those most used are bone and rubber. The bone drainage tubes may be purchased from the larger instrument and drug-houses, but the surgeon can prepare them at home much cheaper. Take turkey or chicken bones or the small bones of larger animals, saw them off to proper length; whip them in ether for a few minutes to dissolve out animal fats and then put in a 33 per cent. solution of hydrochloric acid for six or eight hours; or if bones of larger animals, for twenty-four to forty-eight hours—to dissolve out the phosphate of lime. This, as you all know, leaves the hollow tubes quite soft and flexible so that they may be cut with the scissors and bent in any direction. These tubes must be kept in juniper oil.

Now in any operation, the operator and all who expect to touch the wound or anything that is to come in contact with it, must first wash and brush the hands and nails in soap and water, and then in 1 to 3,000 solution of corrosive sublimate. The field of operation and the parts for some distance around should be thoroughly scrubbed with soap, water and brush, then washed with ether and lastly with the 1 to 3,000 sublimate solution.

The sublimate solution is put into a jar and set upon a shelf above the operator's head, with rubber tube leading out from the bottom, the tube having glass point on end and a thumb piece to let the irrigator on and off. The instruments are kept in a five per cent. solution of carbolic acid or in pure alcohol. As the operation proceeds and the operator stops to secure bleeding points the knives, scissors, etc., are handed to an assistant, who washes them in clean water, dips them into one basin of five per cent. solution of carbolic acid and drops them into

Digitized by Google

another. Every instrument used is treated in the same way. While arteries are being tied or twisted the irrigator is turned on and all blood and clots washed away. This must be done frequently during the operation.

The operation being finished, if it be an amputation, and if drainage be desired, the bone drainage tubes are put in at the angles and cut off close to the surface and sponges held over them while the wound is whipped together with catgut. The wound or stump is then thoroughly irrigated and wiped and the line of the wound peppered with iodoform. The gauze is then taken from the 1 to 500 solution, wrung out through the 1 to 3000 and torn into strips suitable for dressing. The first four or five layers are peppered over with iodoform, which is thoroughly rubbed in by rubbing the gauze between the hands.

This is the *iodoformed sublimated gauze.* Four or five layers of this are laid on, then as many layers of the gauze, *not* iodoformized, are put on over it. Then rubber tissue or oiled silk to prevent evaporation of moisture and volitilazation of the mercury; then a thick layer of borated cotton; then a sublimated gauze bandage, and over all a gauze bandage filled with pulverized glue, which, when dry, makes a hard impervious outside covering. I do not deem this last—the glue bandage—really necessary, and do not use it. This dressing is left on fifteen or twenty days, and if the wound has been rendered aseptic there will be little or no fever after reaction, no acceleration of pulse and no pain. When the dressings are removed the wound will be found to have healed by "the first intention," the drainage tubes will have been absorbed and the gut ligatures likewise except on the outside, which latter may be knocked off with the finger.

If the operation be for the removal of a tumor or the removal of *necrosed* bone, the rubber drainage tube should be used, as we have here a cavity to deal with which may be weeks in healing, and hence the necessity for a drainage tube that will not undergo absorption. In such cases the wound is washed with the sublimate solution at each dressing, especially if there be a purulent discharge. Otherwise we should wipe *around the edges* of the wound with borated cotton dipped in the 1 to 3,000 solu-

Digitized by Google

tion. No sponges are used in *after dressings*, as they are the certain causes of germs. This is especially true if you use one sponge in dressing many cases; for if one case in a ward is discharging septic *pus* then you would, inevitably, carry this to and *infect* all other cases which the sponge should touch.

It is hardly practicable to have an antisepticized sponge for each case and at each dressing, so that it is cheaper, easier and better to use the borated cotton dipped in the sublimate solution.

I have said that catgut is not used in the abdominal cavity. This, perhaps, needs modification. Catgut is used in tying small bleeding points where adhesions have been torn or broken; but silk is used in ligating the pedicle in ovariotomy, in tying the ovary and tube in "Tait's operation" and in securing all large vessels and structures.

It may not be out of place before closing this paper to refer to my own experience with the use of antiseptics as above detailed.

On returning from New York on February 10, I took charge of the Missouri Pacific R. R. Hospital at Sedalia. I will here state that, since the establishment of this hospital in Sedalia, about three years ago, there had not been but one case of "union by the first intention" in major amputations so far as I know or have been able to ascertain; sloughing of stumps followed by long continued suppurative processes with great drain upon the system was the rule. In lacerated wounds, and indeed wounds of all kinds, there was a great deal of suppuration under the old method of treatment and dressing.

Immediately upon taking charge I inaugurated the antiseptic method. All dressings were removed and the wounds irrigated with a 1 to 3,000 sublimated solution and the sublimate gauze dressings applied. Within a few days all purulent processes had ceased, the wounds were dry and granulating, pulses that were above one hundred dropped to seventy-five or eighty, and temperatures that ranged above 100° came down to the normal or in the neighborhood of it. From then until now, in all cases where we have done the operation or put on the first dressing, not a single drop of pus has been seen to be recognized as such.

Digitized by Google

We have had two major amputations, one of the foot and one of the arm, one operation for the relief of strangulated hernia, fifteen or twenty minor amputations, and numbers of lacerated and other wounds. I feel safe in asserting that not as much as five grains of morphia, nor its equivalent in any other opiate, has been given to all of these wounded men. I will here give some illustrated cases:

CASE I.—Henry C., native American, age 48, married, occupation master mechanic in charge of machine shops at Holden, Mo. Had an old, reducible hernia—*direct inguinal*—of the right side. On February 6, 1885, left off his truss on account of its being broken, and in lifting a heavy piece of iron above his head, slipped and fell. On arriving we found that his hernia was down, was much larger than ever before and could not be returned. Physicians were called in and between that day and February 9 he was twice chloroformed, and attempts made to reduce it by competent physicians, but without success. On the 9th he came to the Hospital at Sedalia. The mass in right side of scrotum was very large. I diagnosticated hernia of omentum on account of the inelastic and doughy feel, and also on account of the absence of serious reflex symptoms.

I kept him until February 11th before attempting a reduction or performing an operation. In the meantime, I moved his bowels with a light saline purgative. On the morning of February 11th, with Drs. Trader, E. C. Evans and A. V. Small, and my house staff, Drs. Smith and Bane, Mr. C. was etherized, the field of operation thoroughly washed with soap and water and then with the sublimate solution and a reduction of the mass attempted. This attempt was made by Drs. Small, Evans and myself without results. I then cut down upon and opened the sac and turned out a mass of omentum nearly as large as the two fists. The stricture was found and divided, but with all that I and my assistants could do we could not return it. I then tied the mass with aseptic silk and cut it off, returning the stump to the abdominal cavity. The wound was closed and dressed antiseptically. The patient rested well. Seven hours after the operation the temperature rose to 101° and the pulse to 84. This was the highest temperature recorded in the case,

Digitized by Google

and the pulse only once reached 96, when there was some disturbance of the bowels. The record shows that the temperature was usually normal and the pulse 74 to 78 in the morning and temperature about 99° and pulse 80 to 84 of evenings. This slight afternoon elevation of pulse and temperature only lasted a few days. He was dismissed and returned to duty on the twenty-third day after the operation.

CASE II.—Eugene G., aged 26, a Frenchman and a tramp, while attempting to board a passenger train at Reams Station, Indian Territory, on March 1, fell and the wheel passed over his right foot, crushing all the toes and distal ends of the metatarsal bones. His foot was dressed by being simply bandaged, and he was sent to the Sedalia Hospital, where he arrived that night. Early the next morning he was anæsthetized and the foot examined. Chopart's amputation was determined upon and was at once made under the use of the simplified apparatus. The bone drainage tubes were introduced at each angle of the wound. His temperature arose to 101° in six hours and then dropped to 98.5°, where it remained until he was well. The pulse arose to 120 on the second and third days, but, as it was not accompanied by a corresponding rise of temperature, we attributed the acceleration of pulse to the action of either the iodoform or the mercury. He did not lose a night's sleep, never complained of a pain, took his meals regularly, and, in all respects, seemed perfectly well and hearty. The dressings were removed on the fifteenth day, when our catgut sutures and drainage tubes were found to have been absorbed and the wound healed by the first intention.

CASE III. Joseph S., a boy ten years old, was run over at the Fifth street crossing, K.& T. division Missouri P. R. R., and had his arm crushed, at 6 P. M., on the evening of March 23d, 1885. He was picked up and taken to the hospital at once. I was absent at the time, but Dr. W. B. Outten, chief surgeon of the Missouri P. R. R., being present, amputated the arm at the junction of the middle and upper third. The simplified apparatus was used even to the introduction of two drainage tubes. The boy being a little nervous and the dressing hard to adjust, it slipped off during the night. The nurse readjusted it, and the next

Digitized by Google

morning I irrigated the wound with the 1 to 3,000 solution and put on a dressing that remained. On the Saturday following some little boys came to visit him and found him in the drug store. He sat in a room assigned to them, and played marbles for an hour or more. He never had any elevation of temperature or acceleration of pulse, never complained of a pain, and did not miss a meal. The wound healed by the first intention.

I might multiply these cases with minor cases by the dozen, but I will let it suffice to say that we have not had a failure to unite by the first intention in any case since I took charge of the hospital.

It may be asked, How can these things be accounted for? Why is there no pus, no pain, no fever, no acceleration of pulse, no constitutional disturbance of any kind?

The answer is this: When there is a solution of continuity anywhere, in either soft parts or bone, nature at once sends an abundance of white blood corpuscles to the injured point to repair the breach. These white corpuscles carry the pabulum which is necessary to the repair of all injured tissues, and, if not interfered with, will do the repairing. But when wounds are open or treated according to old methods, organic germs enter, and finding here a favorite field bisect and proliferate. This process takes from the white blood corpuscles some of the elements which are necessary to their life and to the completion of the process of repair. The white blood corpuscles die. Pus is nothing but dead white corpuscles. So says the microscope. When destructive processes once set in they continue indefinitely. It is a battle between the ability of the system to furnish new material on the one hand, and the ability of organic germs to destroy this material in their own upbuilding and proliferation on the other. May I be permitted to ask, which side of this battle ought the progressive surgeon to be on?

When destructive processes are once set up *pus* is formed. Pus produces pressure and pressure produces pain. Absorption of pus produces fever, and hence acceleration of pulse.

I know that it has been considered for centuries that *inflammation* was necessary to the healing of all wounds, and that "surgical fever" necessarily followed all major operations or serious injuries. I do not believe either.

Digitized by Google

We all know that in the ordinary daily wear of the body repair takes place afterwards without pain. The process of repair in this case is not only a painless, but a pleasurable one. We break down tissues in our daily bodily exercise by *force.* A wound is made by *a concentration of force.* Now if the process of repair in the daily bodily waste is a painless one, why should it not be also painless when a large breach is to be repaired. It is so when all *outside interference* (*germs*) is prevented.

Now a few words concerning the qualities of *pus* when formed in contact with or away from contact of the atmosphere, and I will have done.

We all know that in certain forms of bone disease, "Potts' disease of the spine," Psoas' abscess, etc., we have large accumulations of pus without the usual accompanying fever. Many works on surgery, and on orthopedic surgery especially, caution us against opening these abscesses and insist that they shall be permitted to open spontaneously. And they tell us (what we all know) that on the third or fourth day after opening them our patient will have a sudden rise of temperature with serious constitutional symptoms, and give this as the cause: That while the abscess is tense there is no absorption, but as soon as it is opened and the walls are relaxed, rapid absorption sets in, and hence the fever, etc.

This is another fallacy. Pus formed away from contact with the atmosphere (by degeneration of bone, or diseased processes of any kind) is *benign* in character and does not take on septic qualities until freely opened and *bacteria* are permitted to enter and proliferate and render the pus *septic.* The explanation of the immunity conferred by permitting the abscess to open and drain itself, is that in spontaneous opening the aperture is very small and the *pus drains* slowly, completely plugging the aperture against the entrance of germs and as the pus moves *constantly outward* it tends to prevent the entrance of anything from the outside.

It will not do to instance pelvic abscesses as a refutation of this, as in this case *septic germs* enter the pelvic cavity from the uterus through the Fallopian tubes. I will simply add that if

Digitized by Google

you will thoroughly wash out these abscesses with 1 to 3000 sublimate solution and then dress the wound antiseptically, you may open them without fear of absorption of pus. I have had enough experience with "cold abscesses" already to convince me of this fact.

SEX.

By Robert Funkhouser, A. M., LL B., M. D., St. Louis.

NIEBUHR, the great historian, said that traditions should not be thrown aside in the study of the history of nations. What was enunciated by him respecting the history of nations might be accepted as true regarding the ætiology and biology of man. Though many of the myths and traditions are erroneous and not literally true, still in many instances they are founded upon fact. As far back as history carries us, we find the prevalence of the Phallic worship. It has been computed by some authorities that the monuments of that worship can be traced back eleven or twelve thousand years, and on their sides can be seen the representation of the sexes, from which we learn some of the ideas entertained respecting their production and origin.

The egg has ever been the symbol both of female and male. The ancient Hindus, Assyrians and other nations held that the right egg of the male germinated boys, whilst the left produced girls. This idea of sex obtained a place in their religion as typified in the representation of some of the divinities with both sexes combined in one body, the right side being male, with the emblem of the male procreative power in the right hand, and the left being female, with emblems of the female organs of generation in the left hand, and the centre, *i. e.*, the privates, with the emblems of both male and female united, as is seen in the divinity, Parvati. When I began my experiments on sex, nine years ago, I was not aware that the above and other theories had been advanced. It was some time before I narrowed the question down to the testicles. Had I commenced my experiments upon the bipeds, I should have arrived at my conclusions more speedily and with less labor, as I shall demonstrate further on. My ex-

Digitized by Google

periments may not be convincing to some, still I hope they will have the effect of interesting a few in the subject, and of having similar and other experiments repeated. There are many obstacles in the study of the origin of sexes. We should not limit our inquiries to any one species of a genus. It is necessary in the investigation of reproduction to go back to the first forms of life. The division of sexes into male and female, which is seen throughout nature, in the higher organized forms being symmetrical in both sexes, is the result of development. In some of the lower forms of life each organism reproduced itself, but as the organism became more complex, due to adaptation and inheritance, the sexes became separate. By a sexual union of the two the future organism was produced.

As is well known, reproduction takes place, *non-sexually*, by its several methods, and *sexually*, which is the usual method among the higher animals and plants. This method was evolved at a comparatively late period of the earth's history, from non-sexual propagation by *germ cells*. These changes were neither sudden nor spasmodic; thousands of years elapsed before it was accomplished. In sexual propagation, the earliest examples are the hermaphrodites, double-sexed organisms, having the peculiar properties which characterize both sexes. Some species are capable of fructifying themselves; in others it is necessary that a union of the hermaphrodites should take place. From hermaphroditism sexual separation was developed. In some species of a class we find examples of hermaphroditism in some of its members, and in others sexual separation.

In some Infusoria reproduction is effected by sexual union, *i. e.*, the union of the germ and sperm, while others of the same species under certain conditions are agomonegetic, *i. e.*, propagate non-sexually, either fissiparously or gemmiparously. Thus, in this ascent of development, changes and relapses are noticed in the species of the same classes of the Invertebrates. In Parthenogenesis is seen a relapsing into the non-sexual reproduction, a division as yet not fully explained.

It is but reasonable to conclude that the more highly developed organism is the outgrowth of natural laws established by a Supreme power, the reproduction of which organism is amena-

Digitized by Google

ble to the laws of adaptation and inheritance. Propagation is carried on throughout nature by one and the same action, though morphologically different, whether sexual or agamogenetic; the forms are dissimilar, but the result is the same. In the product of propagation we are struck with the herediyof the resemblance of the offspring to the procreators. Not only does the offspring resemble the parents, which physiological fact is not usually appreciated, but the likeness, in some particulars, very often may be traced back several generations. The most prominent hypotheses advanced to account for these phenomena are, viz., the one by Darwin, viz., The Provisional Hypothesis of Pangenesis, and later on, The Perigenesis of the Plastidules, by Haeckel. The pioneers in the elucidation of the theory of Descent and Selection have never received their just dues. To Goethe and Lamarck great credit and praise belong. Oken said that man was developed, not created. What he said of man might be equally well said of all organisms. Man has ascended from the lower organisms.

In attempting to throw some light upon this subject I do not wish to appear "to rush in where angels fear to tread." Laws have been established adequate to account for all the existing phenomena. If we would know, we must seek and find. It is this spirit of *laissez nous faire* that has proved the incubus to progress, civilization and reform. To say that God does not intend that humanity shall understand his laws but begs the question. It is not logical, it is not progressive; it will fail to stem the tide of enquiry. At one time, not very remote, it was denied that the mid-jaw bone existed in man, which was considered so necessary to establish the theory of descent as applied to man. Goethe was convinced that it did exist, and persevered till he found an example of it. He claimed that it must, of necessity, exist. Cuvier, in his scientific conflict with G. de St. Hilaire, was supposed to have got the better of his antagonist. After thirty years the monistic views advocated by Geoffrey and Lamarck prevailed, as predicted by Goethe they would. At first the illustrious men, with Oken, the forerunners of Darwin in establishing the theory of organic development, were in the minority. Now, Cuvier's triumph is of the past.

Digitized by Google

In the development of organisms we are struck with the manifold forms of kindred genera and classes. We see the succession of classes of vertebrate animals from the Fishes upward through the Amphibia and the Mammals, and through the Mammals, in succession. More difficult is it to follow the succession in the Invertebrates. In them we do not uniformly find the symmetrical division of the sexes. In some cases there are more than two testes and ovaries, and in others one. In some of the primitive fishes, also, where it is almost impossible to distinguish the male from the female, here is, to all appearances, but one testicle, though in some species, a groove in the centre, marking the beginning of division into two, is seen. No two offsprings of the same parrents, even, are alike; much less so would we expect the offsprings of different parents to be so. Far less is this the case in Invertebrates, where, in some cases, there are more than two testicles (in some instances, six testicles) and as many ovaries. It is a fact that the union of two sexual elements will produce variability, with hereditary species characteristics. This fact is offered to explain, in great measure, the many varieties of species of genera that have been noticed by different investigators. It will make clear the many *malae species* and *bonae species* about which there has been so much fruitless contention.

When I began myexperiments, on the determination of sex, I was neither an ovist nor a testist, nor did I pin my faith to epigenesis. In a former paper I described these experiments, and the results. I observed that there exists a great attraction between the products of the testicles and the products of the ovaries; that this obtains in the greatest intensity between the ova and zoosperms of the corresponding side, as, for instance, between the *right male* ovum from the right ovary and the *right male* zoosperms from the *right* testicle; and also between the *left female* ovum from the *left* ovary and the *left female* zoosperms from the *left* testicle. I referred to the fact that Darwin had demonstrated the existence of this same law in the fertilization of plants; that when two varieties of pollen are mixed together and applied to the stigma of the pistil, it displays its powers of selection, and will take one particular kind *only* from the several varieties, there being always *one* for which it has the

Digitized by Google

greatest affinity. Should this not be present, it will evince a preference for the one that is nearest to that for which it has the greatest attraction. This law is assisted in some classes of vertebrates by the *position* of the female immediately after a fruitful coitus. In others the position would not affect the impregnation. In animals in which the power of generation is less complete, as in osseous fishes, the ova are impregnated externally to the body of the female by the semen of the male, which is emitted loosely into the water, and those germ and sperm cells unite, which have the greatest attraction or affinity for each other. In all classes of animals this principle of affinity is carried out in reproduction, but modified according to the requirements of each class. Birds (generally) possess two sensitive papillæ, two *penes*, as it were, which are merely capable of juxtaposition. During copulation, the fluid escapes separately from each papilla, in all probability not simultaneously, assisting thereby the principle of sexual selection.

From experiments on dogs I am convinced that the testicles and ovaries, in their physiological function, are similar to the other organs of the body, as the liver, and do not act co-ordinately with each other, as in the action of the parotid glands, but are intermittent; do not act with equal energy, nor simultaneously. If this is so, and I do not doubt it, it would play a most important role in the productive phenomena of the lower animals, especially those that have no vesiculæ seminales, and where the female does not assume a lateral position or has but one active ovarium. Particularly is this so in the impregnation of Birds, where the *sperm* cells from the testicles do not pass into the hen simultaneously, but rather successively and at different connections. As the impregnation of the Bird is not so complex as in the more highly organized animals, I shall confine my remarks, in this paper, to this class, and refer the reader to another paper relating to impregnation in mammals. In my experiments on Birds I take the barnyard fowl as the representative and martyr. In Birds the position of the animal would not influence the impregnation, for there is but one (active) fruitful ovary in the bird, and it would be almost impossible for the hen to assume, *naturally*, a lateral position. Evidently, then, the female in this class is passive in

Digitized by Google

the act of transmission of life. The determining principle, then, resides evidently in the male. To regulate the sex in the bird it is necessary to operate on the male, to partially caponize the rooster. As the *right* testicle represents the *male* principle and the *left* testicle the female, should a rooster be desired, the *left* testicle should be removed; should pullets be desired, the *right* testicle should be removed. The roosters selected for experiment should be young, as the operation is more apt to be successful. Should the rooster have attained his virility before partial emasculation, he should be allowed to tread the hens a number of times before using the eggs impregnated by him for hatching, since any zoosperms in the duct elaborated from the testicle before removal will, in all likelihood, be emitted. Male Birds have two testes, the left (female) being generally the largest, the most active, though occasionally the right is found to be. For the past year I have confined my experiments to chickens and rabbits. In order to hatch the eggs conveniently, in the winter time especially, I contrived an incubator, with which I have had great success. I procured a number of hens and roosters. The roosters that were to keep the hens company which were to lay eggs that would hatch out all pullets, these roosters were deprived of the right testicle. From the eggs obtained from the hens that were impregnated by these roosters I succeeded in hatching out nearly three hundred pullets, with not a rooster among them. Most of the hens were young that laid the eggs. In order to obtain male chickens (roosters), I removed the *left* testicle from the roosters which were to impregnate the eggs of the hens. From these eggs I obtained about forty male chickens, with no females among them. These results show that the determining factor of producing sex undoubtedly resides in the testicles of Birds, the right representing the male, the left the female principle. The process of reproduction in birds, it is seen, is not so complex as in the higher order of animals. Thus, as a result of the development in birds, *two* beings only can be produced, while in those that have two ovaries and two testicles, or more, there can be produced a greater variety, the number depending upon the various unions which may take place between the elements of the different testicles and different ovaries. In

Digitized by Google

another paper I assumed that there might be produced in animals of two testes and two ovaries, four different varieties or individuals; two would be typical, two non-typical. In animals that are not so constructed, as in monetremata, some marsupials, and all birds, two kinds only would be produced, male and female, typical, as their organization has not, in the long interval during its existence, demanded a more varied expression of organic life.

The organisms would be typical relatively speaking. In many instances there would not be a union, for various causes, or if a union, the offspring would not be strong and not able to cope with the various others in the struggle for an existence. Some of the zoosperms and ova might not be life-producing. In the above paper I have not entered into the question of one nature being capable of impressing the offspring mentally, physically or morally, more than another, nor touched upon the question of the influence of food, climate, season, etc., upon organisms; I shall reserve them for another paper.

SOME OF THE NEGLECTED OR NOT DULY APPRECIATED PSYCHICAL PRECURSORS OF BRAIN DISEASE.

By. C. H. Hughes, M. D, St. Louis.

THE precedent of all grave cerebral diseases is neuratrophia,[1] or defective nerve nutrition, disturbing the quality and constituent molecular relations of the cerebral cells and their reciprocal physiological conditions of waste and repair.

Neuratrophia may, in a sense, be considered as functional, to distinguish it from organic disease; *i. e.*, it may be so slightly organic as to not necessarily excite alarm for such seriously de-

1 A term which the writer, in July, 1882, introduced into medical nomenclature, from νευρον, a nerve or string, a privative; and τροφη, nutrition. *Vide* article on "Essential Psychic Signs of General Functional Neuratrophia," in *Alienist and Neurologist*, on July, 1882.

Digitized by Google

structive change as tends to a speedy and grave destruction of physiological function. When, for nicety of distinction, we use the term functional disease, we ought always thus to understand ourselves; because, in strictest sense, there can be no functional derangement without structural change, either in molecule or mass. Structure and function in the human economy always go together, just as in mechanics adjustment determines the character of movement, and variations of movement from the normal, lead us to look for changed mechanism.

The essential pschyical symptoms of general functional neuratrophia, precursory of brain break-down, and which by long continuance, if unrelieved by curative treatment, so often ultimate in destructive conditions—which, when they finally fall under the care of the physician for urgent treatment, are often hopelessly irremedial—are now for a few moments to engage our attention.

One of the strangest inconsistencies in human character is here shown in the proneness on the part of sagacious business men of great enterprise and capacity, to lightly estimate or ignore symptoms which, even in the uninformed minds of the laity, are significant of something, a something which they are incapacitated of course by inexperience for justly estimating, but which at the greatest of risks they often persist in deciding (without medical data) as of but little consequence. A little fire of unrest is kindled somewhere in the brain, a little flaw in the working of the physical machinery has been brought to their consciousness, but, unless it be of such a painful and incapacitating character as to entirely stop or completely derange all function, they persist in goading their mental machinery to further movement until the completion of this or that cherished project, when, at a convenient season, they intend to call in the physician; when, lo! the undertaker comes in his stead, or with him or soon after. A sort of remorse seems to come upon these persons over duty to self undone, and at the last hour when the mental machinery can by no possibility be longer used, the physician is called to watch over morbid conditions he can not change, and certify as best he can to the cause of death, and especially that the patient did not die by his own hand—to keep the coroner out of the house and let

Digitized by Google

the undertaker in. If the honest verdict of our fraternity were asked and given in many of these cases, it would not of course be suicide in the common acceptation of the term, but it would be "Death inadvertently induced by his own hand."

Self-preservation is, ordinarily, the first law of nature, yet our overworked and overworried men of affairs and business, who will promptly stop a fire in the cellar, or a leak in the roof, or a defective foundation which imperils the safety of a business building, will often neglect a flaw, a leak, or a fire in their own organisms until the process of destruction has gone beyond the limits of possible repair, even under the most skillful treatment.

The greatest power of medicine is in the prevention of impending grave disease at that period when the patent nostrum is perilously played with or indifference occupies the patient's mind.

The business man who counsels with his attorney when even the shadow of a suspicion crosses his mind as to the possible existence of a flaw in the title he is about to acquire to a piece of property, usually postpones the services of the physician—like some of them do the advice of the clergy—to the very last moment, or casually asks some passing physician of whose qualifications he is not well assured, what's good for this or that disease he imagines he has; making the astute diagnosis from his own wide observation of disease, or perhaps from what he has learned from the latest reliable family medical almanac, which always makes the symptoms so plain that any fool may see them, and especially the remedy that relieves them (of their money), and the reliable (?) certificates to dovetail with scientific exactness and *pecuniary* certainty with the causes, conditions, and cure!

Thus it is also with the manufacturer, who, though the architect must look promptly after a breaking wall to save the building from falling, has no use himself for the physician until he crumbles and can work no more.

And so it is with the farmer, the fruit-grower, the stock-breeder, and all. The business sagacity which saves their crops of grain, their fruit, and stock by timely attention to the conditions of healthful growth, and efforts to ward off impending disease at its

Digitized by Google

earliest invasion, seems to forsake them when their brain machinery begins to work wrong, unless, fortunately, the disordered action is early accompanied with very great and disabling pain. What a blessing pain is, and what a pity the lighter shades of psychical pain and unrest are not sooner regarded and timely counsel taken!

We are not all of us wholly guiltless of this state of affairs, for do we not sometimes, and too often when a patient comes to us with seemingly insignificant symptoms, dismiss him with a *placebo* and tell him to come again when something definite has developed? For my part I plead guilty to having done so in the past, but without giving the patient needless alarm, or doing or saying anything tending to develop hypochondria or abnormal self-introversion, I now counsel him to come promptly to ascertain the significance or insignificance of slight head symptoms, especially if the person be a man with large and pressing business demands upon him. I have grown wiser with enlarged experience and have ceased to counsel patients into unwarranted and safe security who present certain symptoms, the importance of which I formerly did not understand. I no longer tell them they are imaginary and of no consequence.

The psychical or mental symptoms of cerebral neuratrophia, or brain exhaustion, are too numerous to be discussed more than cursorily. To give them the space they are entitled to would lengthen this paper to the size of a book. But when the nutrition of a sentient motor or ideational brain cell or group of cells fails to furnish the pabulum of force demanded of it, in ever so minute a degree, some change in the tonicity of its functionation takes place, and we have the phenomena of nerve impairment clearly manifested; from the general tired feeling of general neurasthenia or the indisposition to accustomed exertion of cerebrasthenia, the simple and transient feelings of depression, to profound and settled melancholy, from the indefinite morbid fear or dread of something indefinitely dreadful in the patient's environments or destiny, to the well-defined delusion or erratic and delusional and unreasonable impulse which characterizes pronounced and universally recognized insanity.

Neuratrophia and debility of function go together. A starved

Digitized by Google

nerve-center in brain, or cord, or sympathetic ganglion, responds abnormally to the impressions of environment and gives false alarm and morbid function from within, without external excitation; and a nerve center is starved, no matter how rich the blood which goes to it may be, if it fails to appropriate from this pabulum an adequate nutrition to sustain in full the demand made upon it. When disintegration exceeds waste in motor, sensory, or ideational cell, there is overtax and inadequate nutrient supply and a changed function, though it may be, and in the beginning always is, slight, for nature is kind, considerate, and conservative, and seldom permits the breakdown of a brain without timely warning in slightly diminished functionation, when reparation and repair are always possible.

Impending brain failure is seldom manifested on the psychical side—indeed, I doubt if it ever is, if we scrutinize the patient's history closely in the light of an intimate knowledge for comparison of the patient's previous and natural mental traits and habits—without some mental changes.

The bold business man becomes timid and overcautious, or the discreet man becomes indiscreet and somewhat reckless in his business transactions without adequate appreciable cause.

Timidity and various morbid fears—the fear of being alone, of some impending calamity, to make accustomed journeys, a dread of company or crowds, of narrow places, of open places, of lightning, of cyclones, of misfortune in business, of death in the family, or of danger to self or property—overtake the individual without reasonable external cause, and more or less influence his conduct. The mental perceptions of the individual are more or less morbidly colored; his conceptions are likewise more or less transformed into misconceptions. The conduct of those about him or her is misconstrued and misconceived. The patient feels wrong, and, mistaking the subjective for an objective, slightly or grossly misconstrues the conduct or speech of those about him. The emotional nature is often unhinged. Tears come easily and without cause, or without adequate cause. Irritability is increased to sounds and ideational impression. The prattle and caresses of one's children excite irritable instead of the loving responses, as they once did. These and every form of

Digitized by Google

timidity and irresolution, and irritability of manner and speech, not natural to the person and not reasonably acquired through any previous history of the person, are always symptoms of significance. With these evidences of irritability in the brain, this timidity, dread, fear, and easily wounded feeling, come, later on, illusion and hallucination, and finally delusion and insanity. A peculiar irresoluteness of manner precedes or accompanies the morbid fears, which suggests and recalls the shrinking manner and hallucinated and delusional state of more serious mental conditions, as they may be seen in our asylums for the insane.

Timidity unnatural to the individual, a shrinkage from undertakings which, in better states of brain tonicity, would have been entered upon with reasonable confidence and courage, is a sign of more value than has been attributed to it. To our mind it is as important, thongh of less grave import so far as the possibility of a favorable prognosis is concerned, than the opposite state of overweening confidence and inordinate conceit of limitless power not warranted in the natural character or environments of the individual. The latter symptom points to that hopeless malady, general paresis.

General paralysis of the insane appears to be, in its earlier stages, a sort of *sthenotrophia* of the cortex cells, if the coinage be allowable, which is subsequently, by exhaustion of overaction and neuratrophia, the final, complete, and irreparable exhaustion of paralytic dementia.

Cerebral neuratrophia is seldom disconnected from general neurasthenia in those of sedentary occupations, while the outdoor and active man of business may be a physical athlete and a cerebral asthenic; but conjoint debility of brain and body is usually found together in those organisms that break down under combined brain strain and indoor head-work without outdoor bodily exercise or recreation.

Unnatural timidity, irresolution, and fear should always engage our attention, and the victims of them should have our advice long before any particular organ of the system fails. If a patient's kidneys act in an unusual manner, or his genital apparatus does not work right, or if his bowels, or lungs, or liver, act or feel differently, he may consult a physician; but if his head gets

Digitized by Google

disordered, it must be persistently or painfully so before the average person seeks to find out what is the matter and to have the trouble remedied.

The morbid fears of the brain debilitated, as we have intimated, are legion, from the panophobia of Esquirol, the pathophobia and toxiphobia of the other alienists, and all the other "phobias" too numerous to mention, to that singular, unnatural, and morbid fear which sometimes overcomes a naturally fearless man and causes him to evade familiar faces, though he has done nothing to make him ashamed, as I have witnessed in one of my patients.

This is debility of the brain—what Beard called *cerebrasthenia;* and the fears, forebodings (imaginary) of evil, and the morbid, unnatural dreads of possible adverse consequences of the ordinary mental movements are its characteristics. Associated with these are the timidity and irresolution or transitory or spasmodic decision which has taken the place of previous natural firmness of mind apparent in the mental conduct when the brain was healthy and the mind was strong.[1]

This is the most important fact for the general practitioner to consider, for the initial stage of *unnatural* timidity and irresolution, which the family medical adviser may discover, if he is on the lookout for it, is the time when the possible impending calamity of mental aberration may be arrested by counseling a prompt suspension of business, judicious treatment of all developing physical symptoms, and a flight to the sea or mountain (if the season of the year be propitious) from over mental strain and worry, of whatever kind it may be, that is exhausting the patient.

A recuperative therapy should be advised in rest, recreation, and change of mental occupation and environment.

These morbid fears, and the irresolution and timidity which underlie them, are but the shadows (if unaverted) cast before the graver coming events in the accepted symptoms of insanity. Neuratrophia underlies almost all insanity.[2]

---

1 The true diagnostic qualification is in the change in the individual's character in these respects.

2 "Esquirol has thus painted some of the advanced neuratrophic neurasthenic denizens of Salpetriere and Charenton: 'Certain persons who

Digitized by Google

The essential feature of cerebral neuratrophia to be especially noted and emphasized is the timidity *not natural* in the person, out of which these morbid fears grow, and which gives to the mental character that notable change in which irresolution replaces former decision, and supplements even marked natural *fearlessness* with *fearfulness*, and causes the once characteristically courageous man to display groundless dreads innumerable. Such fears may be common to others, but they were unusual to the neuratrophic person in his best mental state.

The change of mental character in cerebral neuratrophia is not the less real, though far removed from it in degree, than that which characterizes insanity. It is often accompanied with general functional neuratrophia, of which it is the cerebrally localized expression. The changed voice and walk and functional nerve irritability or inertia, as well as the altered movements, reveal it. Psychical timidity and indecision in a naturally courageous and decided character is as much a symptom of cerebral disorder as a changed hepatic secretion is of liver disease, or as disordered movement of the bowels is indicative of enteric derangement, and the true clinician will so regard them.

DISCUSSION.

Dr. Catlett regretted that in his absence he had missed some of the most important points in the paper, but had heard enough to compliment the doctor for the valuable suggestions he had made. Reported several cases to demonstrate the truth of the author's statement. Thus, a man had a morbid fear that some one would detect that he was

---

suffer from *panophobia* are afraid of the approach of night and darkness.' (*Mal. Ment.*, p. 216.) 'Lypemaniacs dread obscurity, solitude, insomnia, the terrors of sleep; fear, terror, jealousy, and hallucinations keep them awake.' 'I once had in charge,' said he, 'a lady whom the slightest noise filled with terror, especially during the obscurity of the night. The steps of a person walking lightly caused her to shudder, and the wind caused her to tremble. The noise which she herself made while in bed frightened her, and obliged her to utter cries of terror. I enabled this *panophobist* to sleep at night by keeping a light in her chamber, and placing a woman with her who watched during the whole night.'" (*Ib.*, p. 116.)

Vide author's paper on "Psychical Signs of General Functional Neuratrophia," for further illustration of this subject," in *Alienist and Neurologist*, for April, 1882.

Digitized by Google

losing his mind. In that case he had made a careful examination but could find no physical disturbance, or any cause for the mental disease. He thought, as a rule, however, careful inquiry will often uncover some physical defect. If by appropriate treatment such could be removed, and the general condition improved, insanity may be avoided. Thought that the profession in general should pay more attention to the subject, and was certain that, inasmuch as the family practitioner was the first to be consulted in such cases, by so doing many persons would be saved from mental destruction.

DR. HURT.—The question was very interesting, not only to the general practitioner but also to the specialist. The etiology of mental troubles was extremely complex and required more study than most men could devote to it. Spoke of the correlation of forces.

DR. MUDD.—The anatomy of the brain must be the basis of determination of disease; most writers are now exercised over the location of brain lesions. Believes that rest is the *sine qua non* in the treatment of cerebral diseases. Thought that if physical causes could be discovered they should be removed, and that many times the mental disturbance would disappear. Spoke of the influence of the nervous system in the after treatment of surgical injuries, and advised all practitioners to pay more attention to psychical diseases.

DR. HANNA agreed with Dr. Mudd in every respect. All organs are dependent upon each other, we cannot separate them in any respect. Disease of one tends to derange all others. The brain and nervous system offers no exception to the general rule. Malnutrition is many times the cause of brain disease.

DR. HUGHES.—There are many conditions of the organism susceptible to recovery. Some of these have been and are overlooked by the profession. He cared not for the association of mind and matter, for the terms were in some respects convertible. He thought that purely functional diseases were rapidly diminishing in number, and even then such disturbances were but the manifestations of organic changes somewhere, and that we may safely say that where there is disordered function there is disordered structure.

Digitized by Google

UPS AND DOWNS OF DOCTORS.

G. M. Dewey, M. D., Keytesville, Mo.

IF Adam had the Lord obeyed,
He might in Paradise have stayed.
If God's instruction had been heeded.
No drugs or doctors would be needed.

But love of ease or love of fame,
His honest purpose overcame.
He ate the fruit, the bible saith,
That brought about disease and death.

What it was that Adam ate,
Has given rise to much debate.
Some men, who with subjects grapple,
Are loth to think it was an apple.

Such haste is shown their shame to hide,
A lover's freak is here implied.
While preachers prate about the fall—
'Twas very natural after all.

If Eve was not designed to breed,
Of uterus she had no need.
A eunuch Adam should have been,
If propagation was a sin.

Whatever men may think or say,
Forbidden fruits be what they may,
The sad results of Adam's fall,
Disease and death, have come to all.

Digitized by Google

The sentence came from the most high,
That Eve and Adam now must die;
Although it filled their souls with fears,
They lived well nigh a thousand years.

The woman said a charming snake
Induced her to the apple take,
While Adam did the coward play,
And on his wife the evil lay.

From sickness, sorrow, death and pain,
Man sought by drugs relief to gain;
An antidote he hoped to find,
To cure the belly and the mind.

So in all ages and all climes,
In ancient and in modern times,
We've spent our energies and breath
To put far off the day of death.

Low be the scale of living things,
Approaching death no sorrow brings;
Our daily thought, one constant strife,
A war with death, a fight for life.

We all by Flint and Barker swear,
As men of parts they no doubt are,
A demigod the heathen sees,
In Galen and Hippocrates.

Our fathers did not trust to books;
Success was in their gravid looks.
Their lack of knowledge snugly hid,
Behind a powdered queue and wig.

To dignity they all aspired,
A virtue by all fools admired.
If gravity would pass for sense,
The hooting owl might make pretence.

Digitized by Google

The barber-surgeon in his day,
In practice had unbounded sway;
He blistered, cupped, and leeched and bled,
But not a mouthful ever fed.

All kinds of quacks their patients cure,
However ignorant or obscure.
The Chinamen get well, we see,
On lizard soup and ginsing tea.

Dame nature lends a helping hand,
To all the pathies in the land.
Diseases have a course to run,
Whatever may be said or done.

Our fathers were all fools, 'tis said,
Because they blistered, puked and bled.
Still marble slabs denote the place,
Where modern skill has dumped the race.

Such fondness have some men to ride,
They every passing hobby stride.
Our fathers rode in sweeping gallop,
Rhubarb, calomel and jalap.

Some doctors hope with sugared pills,
To cure all kinds of aches and ills.
High tension fools forever prate,
About the cures their nonsense make.

The favorate nag upon the turf,
Whose praises ring around the earth,
Usurps the place of pork and wine,
The dashing steed, sulphate quinine.

No heat so high, no pulse so low,
But down one's throat the stuff must go.
Let the complaint be what it may,
We're poisoned by malaria.

Digitized by Google

The doctors have at last found out,
The cause of death beyond a doubt.
A bug ordained to bite and kill us,
A parasite they call bacillus.

The microscope can demonstrate,
These devils are of every shape.
In choleraichs it is found,
These comma cups do then abound.

They are the cause of all our ills,
Of septicemia, fits and chills,
Small-pox and measles, croup and biles,
Anthrax and ague, gout and piles.

The noted Koch has taxed his skill,
This wicked parasite to kill.
In chloroform they take delight,
And multiply in dynamite.

For gallant service in the fight,
Was Mr. Lister made a knight.
The Queen so high his folly prized,
She had all England carbolized.

But some M. D's are always skeptics,
Devoid of faith in antiseptics.
The very name of sporules hate,
The chief of whom is Lawson Tait.

Who cuts out tumors by the score,
Regardless of the infectious spore,
To one sole point his efforts lean,
To keep the wounded patient clean.

Poor Koch will live to see the day,
His shallow honors fade away.
A meteor by the shades of night,
Will disappear before the light.

Digitized by Google

A doctor's fame, we all well know,
Like briny seas will ebb and flow.
High on the billows some did ride,
They're waning like the ebbing tide.

The cures by nature to deny,
To God an insult does imply.
For had she needed so much aid,
Some doctors surely He'd have made.

Men throw away their common sense,
Who practice on the presidents;
Urged by the people, it is said,
They searched too much to find the lead.

And in derision now they say
The doctors gave themselves away;
An awful blunder did they make—
An ulcer for a cancer take.

The law has now the standard lowered,
And licensed all the ignorant horde,
While every village has a college,
Possessing far more chairs than knowledge.

To quackery they've lent their aid,
A corner on diplomas made.
No hapless cuss is turned away,
Who can the needed lucre pay.

Digitized by Google

ERRATA.

The following discussion should have appeared after Dr. Wilson's paper on Typho-Malarial Fever, page 37.

DISCUSSION.

DR. ALLEN.—Rare to see a typical case of typhoid fever. Thought that there was a close relationship between typhoid fever and typho-malarial fever. Typho-malarial fever is typhoid fever modified by malaria. Agreed with Dr. Wilson that the treatment is to reduce the temperature. We cannot cut short the disease. Alcohol in high temperature stimulates heart's action and reduces heat. Thought that the nervous symptoms were dependent upon reflex irritation and increased temperature. Vaso-motor paralysis congests the brain. Recommended digitalis as the remedy, beginning its use about the fifteenth day. Gives the drug in large doses until it affects the heart. Large doses of quinine not good. Twenty grains or over every three hours increases the tendency to anemia of the brain and also complicates the case by the gastritis or irritation of the stomach caused by such abuse of the drug. Considers quinine a valuable remedy in this disease, through its tonic influence on the vaso-motor nervous system. If it is necessary to reduce the temperature, do so by cold sponging or graded baths.

DR. DEWEY does not use quinine in any stage. It has no influence on the course or degree of the fever and it irritates the stomach. Considered regulation of diet the most important treatment.

DR. RECORDS disagreed with Dr. Allen in the use of quinine and alcohol. Had treated hemorrhagic typhoid fever by the German method. Large doses of quinine and the bath. Reduced the temperature from 1½ to 3 degrees for twelve hours. Thought that the fever would have lasted longer had quinine not been given. Milk is the best remedy and food. Gave as much as the patient could drink. Did not think it dangerous. Thought that beef tea did more harm than good. Thought that all refuse material in the abdomen should be removed. Opium doses harm by interfering with the digestion of the milk.

DR. FITZGERALD thought that the usual treatment of typhoid fever was dangerous. Especially the use of large doses of quinine. Used warm water to reduce the temperature. Commences with the temperature of the bath 100 degrees, keeps the patient in from ten to twenty minutes, allowing the water to cool gradually. By this means could reduce the temperature from 1 to 3 degrees. Gives no opium. Believes in the milk diet, but thought it best to digest the milk with pancreatine before giving it. Thought that digitalis was a dangerous remedy, although good in some cases, but was contraindicated if there was any gastric trouble.

DR. STRINGFELLOW could not agree with all the author said. Had always reduced the temperature with salicylic acid. Condemned the use of quinine as an antepyretic.

DR. MATTHEWS believed in the symptomatic treatment. High temperature could be reduced by baths and salicylic acid.

Digitized by Google

CODE OF MEDICAL ETHICS.—OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND OF THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ARTICLE I.

DUTIES OF PHYSICIANS TO THEIR PATIENTS.

SECTION 1. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring, because there is no tribunal other than his own conscience to adjudge penalties for carelessness and neglect. Physicians should, therefore, minister to the sick with due impression of the importance of their office; reflecting that the ease, the health, and the lives of those committed to their charge, depend upon their skill, attention, and fidelity. They should study, also, in their deportment, so to unite *tenderness* and *firmness*, and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect and confidence.

SEC. 2. Every case committed to the charge of a physician should be treated with attention, steadiness, and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed, and the familiar and confidential intercourse to which physicians are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secrecy extends beyond the period of professional services;—none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance should ever be divulged by the physician except when he is imper-

Digitized by Google

atively required to do so. The force and necessity of this obligation is indeed so great, that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

SEC. 3. Frequent visits to the sick are, in general, requisite, since they enable the physician to arrive at a more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

SEC. 4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give the friends of the patient timely notice of danger when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquility of the most resigned in their last moments. The life of a sick person can be shortened not only by the acts, but also by the words or manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

SEC. 5. A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient, and comforting to the relatives around him, even in the last period of a fatal malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance under such circumstances, would be sacrificing to fanciful delicacy and mistaken liberality, that moral duty which is independent of, and far superior to, all pecuniary consideration.

SEC. 6. Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy and more enlarged views in practice.

Digitized by Google

SEC. 7. The opportunity which a physician not infrequently enjoys of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. His councils, or even remonstrances, will give satisfaction, not offence, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they were addressed.

ARTICLE II.

OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

SECTION 1. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties toward the community, and who are required to make so many sacrifices of comfort, ease, and health, for the welfare of those who avail themselves of their services, certainly have a right to expect and require, that their patients shall entertain a just sense of the duties which they owe to their medical attendants.

SEC. 2. The first duty of a patient is to select as his medical adviser, one who has received a regular professional education. In no trade or occupation do mankind rely on the skill of an untaught artist; and in medicine, the most difficult and intricate of the sciences, the world ought not to suppose that knowledge is intuitive.

SEC. 3. Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should also confide the care of himself and family, as much as possible, to one physician; for a medical man who has become acquainted with the peculiarities of constitution, habits, and predisposition of those he attends, is more likely to be successful in treatment than one who does not possess that knowledge.

A patient who has thus selected his physician should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

SEC. 4. Patients should faithfully and unreservedly communicate to their physician the supposed cause of their disease. This

Digitized by Google

is the more important, as many diseases of a mental origin stimulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms, and causes of complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observance in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease, which might have been readily prevented had timely intimation been given to the physician.

SEC. 5. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most minute account of his own framing. Neither should he obtrude upon his physician the details of business nor the history of his family concerns.

SEC. 6. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous and even fatal. This remark is equally applicable to diet, drink, and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever, that may be recommended to them by the self-constituted doctors and doctresses, who are frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

SEC. 7. A patient should, if possible, avoid even the *friendly visits of a physician* who is not attending him—and when he does receive them, he should never converse on the subject of his dis-

Digitized by Google

ease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success, when employed singly, yet conjointly, they are very likely to be productive of disastrous results.

SEC. 8. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

SEC. 9. Patients should always, when practicable, send for their physician in the morning, before his usual hour for going out; for by being early aware of the visits he has to pay during the day, the physician is liable to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the detention of a few minutes is often of serious inconvenience.

SEC. 10. A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician; for these are of such a character, that no mere pecuniary acknowledgment can repay or cancel them.

OF THE DUTIES OF PHYSICIANS TO EACH OTHER, AND TO THE PROFESSION AT LARGE.

ARTICLE I.

DUTIES FOR THE SUPPORT OF PROFESSIONAL CHARACTER.

SECTION 1. Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly such laws as are instituted for the government of its members—should avoid all con-

Digitized by Google

tumelious and sarcastic remarks relative to the faculty as a body; and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

SEC. 2. There is no profession from the members of which greater purity of character, and a higher standard of moral excellence are required, than the medical; and to attain such an eminence is the duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence; and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding, and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well being, and even to the life, of a fellow creature.

SEC. 3. It is derogatory to the dignity of the profession to resort to public advertisement, or private cards, or hand-bills inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are ordinary practices of empirics, and are highly reprehensible in a regular physician.

SEC. 4. Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or others. For, if such nostrum has real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

Digitized by Google

ARTICLE II.

PROFESSIONAL SERVICES OF PHYSICIANS TO ONE ANOTHER.

SECTION 1. All practitioners of medicine, their wives, and their children, while under paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted with disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, or child, or any one, who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously; as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined; for no pecuniary obligation ought to be imposed, which the party receiving it would wish not to incur.

ARTICLE III.

OF THE DUTIES OF PHYSICIANS AS RESPECTS VICARIOUS OFFICES.

SECTION 1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy which should always be performed with the utmost consideration for the interest and character of the family physician, and when exercised for a short period, all the pecuniary obligations for such service would be awarded him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy, without awarding to the physician who officiates, the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to

Digitized by Google

unusual fatigue, anxiety, and responsibility, it is just that the fees accruing therefrom should be awarded the physician who officiates.

ARTICLE IV.

OF THE DUTIES OF PHYSICIANS IN REGARD TO CONSULTATIONS.

SECTION 1. A regular medical education furnishes the only presumptive evidence of professional abilities and requirements, and ought to be the only acknowledged right of any individual to the exercises and honors of his profession. Nevertheless, as in consultation the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this Association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered a regular practitioner or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

SEC. 2. In consultations, no rivalship or jealousy should be indulged in; candor, probity, and all due respect should be exercised toward the physician having charge of the case.

SEC. 3. In consultations, the attending physician should be the first to propose the necessary questions to the sick; after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the one first in attendance should communicate the directions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent; and no *opinions* or *prognostications* should be delivered which are not the result of previous deliberation and concurrence.

SEC. 4. In consultations, the physician in attendance should deliver his opinion first; and where there are several consulting, they

Digitized by Google

should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variations in the mode of treatment as any subsequent unexpected change in the character of the case may demand. But such variation, and the reason for it, ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him at the next consultation.

SEC. 5. The utmost punctuality should be observed in the visits of physicians when they are to hold consultations together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedure of all others, and to be an ample reason for the relinquishment of any present occupation. But, as professional engagements may sometimes interfere, and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will, of course, see the patient and prescribe, but if it be the consulting one, he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient and give his opinion in *writing* and *under seal*, to be delivered to his associates.

SEC. 6. In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time. For there must be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

SEC. 7. All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any parties to a consultation assert or intimate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share their credit of success as well as the blame of failure.

SEC. 8. Should an irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be taken as decisive; but if the numbers be equal on each side, then the decision should rest with the attending physician. It may, moreover, sometimes happen that two physi-

Digitized by Google

cians cannot agree in their views of the nature of the case, and the treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But in the event of its occurrence, a third physician should, if practicable, be called to act as umpire; if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in which he is most willing to confide. But as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation, or participation in the management of the case.

SEC. 9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such cases should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion both of time and attention, at least a double *honorarium* may be reasonably expected.

SEC. 10. A physician who is called upon to consult should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter, if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

ARTICLE V.

DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

SECTION 1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

SEC. 2. A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made—no disingenu-

Digitized by Google

ous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that directly or indirectly tends to diminish the trust reposed in the physician employed.

SEC. 3. The same circumspection and reserve should be observed when, from motives of business and friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

SEC. 4. A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another member of the faculty in the illness, except in case of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case or has been regularly notified that his services are no longer desired. Under such circumstances no unjust or illiberal insinuations should be thrown out in regard to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and as many diseases are naturally protracted, the want of success, in the first stages of treatment, affords no evidence of a lack of professional knowledge or skill.

SEC. 5. When a physician is called to an urgent case, because the family attendant is not at hand, he ought, unless his assistance in consultation is desired, to resign the care of the patient to the latter immediately on his arrival.

SEC. 6. It often happens, in case of sudden illness, or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances, courtesy should assign the patient to the first who arrives, who should select from those present any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his further attendance be requested, should resign the case to the latter on his arrival.

SEC. 7. When a physician is called to the patient of another

Digitized by Google

practitioner, in consequence of the sickness or absence of the latter, he ought on the return or recovery of the regular attendant, and with the consent of the patient, to surrender the case.

[The expression "patient of another practitioner," is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of the sickness, or departure from home of the latter, or who may have been called for his attendance during his absence or sickness, or in any other manner given it to be understood that he regarded the said physician as his regular medical attendant.]

SEC. 8. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment, to assume no future direction unless it be expressly desired; and, in the last case, to request an immediate consultation with the practitioner previously employed.

SEC. 9. A wealthy physician should not give advice *gratis* to the affluent, because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficient one, and it is defrauding, in some degree, the common funds for its support when fees are dispensed with which might justly be claimed.

SEC. 10. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

ARTICLE VI.

OF DIFFERENCES BETWEEN PHYSICIANS.

SECTION 1. Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a *court-medical.*

Digitized by Google

SEC. 2. As a peculiar reserve must be maintained by physicians toward the public in regard to professional matters, and as there exists numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, neither the subject matter of such differences nor the adjudication of the arbitrators should be made public, as publicity in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit to the faculty.

OF THE DUTIES OF THE PROFESSION TO THE PUBLIC, AND OF THE OBLIGATIONS OF THE PUBLIC TO THE PROFESSION.

ARTICLE I.

DUTIES OF THE PROFESSION TO THE PUBLIC.

SECTION 1. As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever ready to give counsel to the public in relation to matters especially appertaining to their profession, and on subjects of medical police, public hygiene, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations—the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions—in relation to the medical police of towns, as drainage, ventilation, etc., and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives.

SEC. 2. Medical men should also be always ready, when called on by the legally constituted authorities; to enlighten coroner's inquests and courts of justice on subjects strictly medical—such as involve questions relating to sanity, legitimacy, murder by poisons or other violent means, and in regard to the various other subjects embraced in the science of Medical Jurisprudence, But in these

Digitized by Google

cases, and especially where they are required to make a *post-mortem* examination, it is just, in consequence of time, labor and skill required, and the responsibility and risk they incur, that the public should award them a proper *honorarium*.

SEC. 3. There is no profession by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limit should be placed to the performance of such good offices. Poverty, professional brotherhood, and certain of the public duties referred to in the first section of this article, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit, for the insurance of lives, or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, to perform militia duty, or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without pecuniary acknowledgment. But to individuals in indigent circumstances such professional services should always be cheerfully and freely accorded.

SEC. 4. It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injury to health and even the destruction of life caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and impostors. Physicians ought to use all the influences which they may possess as professors in colleges of pharmacy, and, by exercising their opinion in regard to the shops to which their prescriptions shall be sent, to discourage druggists and apothecaries from vending quack or secret medicines, or from being in any way engaged in their manufacture and sale.

ARTICLE II.

OBLIGATIONS OF THE PUBLIC TO PHYSICIANS.

SECTION 1. The benefits accruing to the public, directly and indirectly, from the active and unwearied beneficence of the profession are so numerous and important that physicians are justly entitled to the utmost consideration and respect from the community. The public ought likewise to entertain a just appreciation of medi-

Digitized by Google

cal qualifications; to make a proper discrimination between true science and the assumptions of ignorance and empiricism; to afford every encouragement and facility for the acquisition of medical education; and no longer to allow the statute books to exhibit the anomaly of exacting knowledge from physicians under a liability of heavy penalties, and of making them obnoxious to punishment for resorting to the only means of obtaining it.

EXPLANATORY RESOLUTIONS.

The following resolutions were adopted at the New Orleans meeting of the American Medical Association, April 30, 1885, and ordered appended to all further publications of the Code:

WHEREAS, Persistent misrepresentations have been, and are still being, made concerning certain provisions of the Code of Ethics of this Association, by which many in the community, and some even in the ranks of the profession, are led to believe those provisions exclude persons from professional recognition simply because of differences of opinion of doctrines; therefore, be it

Resolved, That Section 1, Article IV., in the National Code of Medical Ethics is not interpreted as excluding from professional fellowship, on the ground of differences in doctrine or belief, those who, in other respects, are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice.

Resolved, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper to assume a name indicating to the public a sectarian or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

Resolved, That there is no provision in the National Code of Medical Ethics in anywise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as indicating, under any circumstances, the rendering of professional services whenever there is a pressing or immediate need of them. On the contrary,

Digitized by Google

to promptly meet the emergencies occasioned by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code. But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

This report was signed by

N. S. Davis, of Chicago.
A. Y. P. Garnett, of Washington.
H. F. Campbell, of Augusta.
Austin Flint, Sr., of New York.
J. B. Murdoch, of Pittsburg.

Digitized by Google

LIST OF OFFICERS

AND PLACES OF MEETING FROM THE TIME OF THE ORGANIZATION OF THE ASSOCIATION TO THE PRESENT.

[Every member who may have been, or who may hereafter be elected PRESIDENT of this Association, will, by virtue of that fact, become an HONORARY MEMBER.—*Extract from By-Laws.*]

[Officers marked with an asterisk (*) are deceased.]

1850.—ST. LOUIS.

President: *W. G. THOMAS, M. D., Boonville.

Vice-Presidents:

*JOHN BARNES, M. D., St. Louis. B. F. COULTER, M. D., Pike.
H. F. HUGHES, M. D., Lewis. JOS. WOOD, M. D., St. Joseph.
J. F. ATKINSON, M. D., Lafayette.

Secretaries:

J. S. B. ALLEYNE, M. D., St. Louis. H. C. WRIGHT, M. D., Warren.

Treasurer: *GEO. JOHNSON, M. D., St. Louis.

1851.—BOONVILLE.

President: W. H. MCPHEETERS, M. D., St. Louis.

Vice-Presidents:

J. S. MOORE, M. D., St. Louis. S. T. GREGORY, M. D., Warrenton.
GEO. C. HEART, SR., M.D., Boonville. R. G. KELLEBREW, M. D., Pettis.

Secretaries:

J. S. B. ALLEYNE, M. D., St. Louis. *C. Q. CHANDLER, M. D., Cooper Co.

Treasurer: *GEO. JOHNSON, M. D., St. Louis.

1852.—ST. LOUIS.

President: J. B. JOHNSON, M. D., St. Louis.

Vice-Presidents:

*C. A. POPE, M. D., St. Louis. J. C. WELBORN, M. D., Frankford.
*C. Q. CHANDLER, M. D., Boonville. J. C. CHINN, M. D., Lexington.

Secretaries:

J. S. B. ALLEYNE, M. D., St. Louis. J. P. VAUGHN, M. D., Glasgow.

Treasurer: E. S. LEMOINE, M. D., St. Louis.

Digitized by Google

1853.—ST. LOUIS.

President: J. P. VAUGHN, M. D., Glasgow.

Vice-Presidents:

GEO. ENGELMANN, M. D., St. Louis. S. W. BUCKNER, M. D., Pike Co.
*C. Q. CHANDLER, M. D., Boonville. SILAS REED, M. D., St. Louis.
G. M. B. MAUGHS, M. D., Cooper County.

Secretaries:

J. J. DUPUY, M. D., St. Louis. W. A. CURREY, M. D., Jefferson City.

Treasurer: E. S. LEMOINE, M. D., St. Louis.

1854.—ST. LOUIS.

President: J. B. ALEXANDER, M. D., Lexington.

Vice-Presidents:

J. S. B. ALLEYNE, M. D., St. Louis. J. WILCOX, M. D., Rocheport.
J. S. LONG, M. D., Lexington. JAS. SYKES, M. D., St. Joseph.
——— BULL, M. D., Hannibal.

Secretaries:

W. P. BOULWARE, M. D., Lexington. E. F. SMITH, M. D., St. Louis.

Treasurer: G. W. SHEWALTER, M. D., Lexington.

1855.—LEXINGTON.

President: *C. A. POPE, M. D., St. Louis.

1856.—ST. JOSEPH.

1857.—ST. JOSEPH.

1858.—ST. LOUIS.

[The gap between the last and the following dates occurred during the war.]

1867.—ST. LOUIS.

President: G. A. WILLIAMS, M. D., Boonville.

Vice-Presidents:

P. A. HEITZ, M. D., Palmyra. *J. H. WATTERS, M. D., St. Louis.
J. B. JOHNSON, M. D., St. Louis. *A. HAMMER, M. D., St. Louis.
J. F. BARBOUR, M. D., New Madrid.

Recording Secretaries:

T. F. PREWITT, M. D., St. Louis. *J. W. CLEMENS, M. D., St. Louis.

Corresponding Secretary: W. B. OUTTEN, M. D., St. Louis.

Treasurer: *THOS. KENNARD, M. D., St. Louis.

Digitized by Google

1868.—ST. LOUIS.

President: W. B. Morris, M. D., Bridgeton.

Vice-Presidents:

M. A. Pallen, M. D., St. Louis. B. J. Birch, M. D., Franklin Co.
Wm. H. Cooper, M. D., St. Louis. G. Hurt, M. D., St. Louis.
*J. R. Washington, M. D., St. Louis,

Recording Secretaries:

*R. S. Anderson, M. D., St. Louis. J. F. Barbour, M. D., New Madrid.

Corresponding Secretary: C. E. Briggs, M. D., St. Louis.

Treasurer: E. S. Lemoine, M. D., St. Louis.

1869.—ST. LOUIS.

President: Chas. F. Clayton, M. D., Ralls Co.

Vice-Presidents:

N. Gauss, M. D., Chariton Co. J. M. Scott, M. D., St. Louis.
J. B. Johnson, M. D., St. Louis. J. S. Moore, M. D., St. Louis.
LeGrand Atwood, M. D., Bridgeton.

Recording Secretaries:

*Thos. Kennard, M. D., St. Louis. T. F. Prewitt, M. D., St. Louis.

Corresponding Secretary: *R. S. Anderson, M. D., St. Louis.

Treasurer: G. M. B. Maughs, M. D., St. Louis.

1870.—ST. LOUIS.

President: T. B. Lester, M. D., Kansas City.

Vice-Presidents:

G. M. B. Maughs, M. D., St. Louis. J. T. Bell, M. D., Louisiana.
E. Montgomery, M. D., St. Louis. G. B. Dysart, M. D., Paris.
J. F. Atkinson, M. D., Lexington.

Recording Secretaries:

*R. S. Anderson, M. D., St. Louis. T. F. Prewitt, M. D., St. Louis.

Corresponding Secretary: Y. H. Bond, M. D., St. Louis.

Treasurer: E. F. Smith, M. D., St. Louis.

1871.—ST. LOUIS.

President: J. E. Tefft, M. D., Springfield.

Vice-Presidents:

*Jos. Chew, M. D., Kansas City. G. C. Catlett, M. D., St. Joseph.
D. H. Shields, M. D., Hannibal. *Thos. Kennard, M. D., St. Louis.
H. H. Middlekamp, M. D., Warrenton.

Recording Secretaries:

*R. S. Anderson, M. D., St. Louis. G. W. Broome, M. D., Moberly.

Corresponding Secretary: W. H. Grissom, M. D., St. Louis.

Treasurer: T. F. Prewitt, M. D., St. Louis.

Digitized by Google

1872.—ST. JOSEPH.

President: E. MONTGOMERY, M. D., St. Louis.

Vice-Presidents:

HUGH TREVOR, M. D., St. Joseph. S. S. TODD, M. D., Kansas City.
D. H. SHIELDS, M. D., Hannibal. J. P. DIMMITT, M. D., Clinton.
*T. J. MONTGOMERY, M. D., Sedalia.

Recording Secretaries:

*R. S. ANDERSON, M. D., St. Louis. E. W. SCHAUFFLER, M. D., Kansas City.
Corresponding Secretary: H. Z. GILL, M. D., St. Louis.
Treasurer: E. A. DONELAN, M. D., St. Joseph.

1873.—MOBERLY.

President: S. S. TODD, M. D., Kansas City.

Vice-Presidents:

E. A. GORE, M. D., Paris. W. O. TORREY, M. D., Brookfield.
G. W. BROOME, M. D., Moberly. J. B. JONES, M. D., Sedalia.
W. H. BRYANT, M. D., Savannah.

Recording Secretaries:

E. W. SCHAUFFLER, M. D., Kan. City. J. W. TRADER, M. D. Sedalia.
Corresponding Secretary; J. P. DIMMITT, M. D., Clinton.
Treasurer: R. H. BROWN, M. D., Kirksville.

1874.—SEDALIA.

President: W. O. TORREY, M. D., Hannibal.

Vice-Presidents:

J. S. B. ALLEYNE, M. D., St. Louis, F. M. JOHNSON, M. D., Platte City.
W. C. WEBB, M. D., Dover. W. S. SHAUKLAND, M. D., Clinton.
*T. J. MONTGOMERY, M. D., Sedalia.
Recording Secretary: E. W. SCHAUFFLER, M. D., Kansas City.
Corresponding Secretary: A. S. CLOUD, M. D., Chillicothe.
Treasurer: *J. T. HODGEN, M. D., St. Louis.

1875.—JEFFERSON CITY.

President: *JOHN T. HODGEN, M. D., St. Louis

Vice-Presidents:

F. M. JOHNSON, M. D., Platte City. J. M. ALLEN, M. D., Liberty.
J. S. B. ALLEYNE, M. D., St. Louis. J. T. WILSON, M. D., Weston.
*G. B. WINSTON, M. D., Jefferson City.

Recording Secretaries:

E. W. SCHAUFFLER, M. D., Kan. City. H. N. SPENCER, M. D., St. Louis.
Corresponding Secretary: JOHN H. BRITTS, M. D , Clinton.
Treasurer: A. W. KINCANNON, M. D., Clinton.

Digitized by Google

1876.—ST. LOUIS.

President: J. W. TRADER, M. D., Sedalia.

Vice-Presidents:

*W. D. GLENN, M. D., Rolla. S. T. NEWMAN, M. D., St. Louis.
H. H. MIDDLEKAMP, M. D., Warrenton. W. I. HEDDENS, M. D., St. Joseph.
E. W. SCHAUFFLER, M. D., Kansas City.

Recording Secretaries:

WM. PORTER, M. D., St. Louis. D. R. PORTER, M. D., Kansas City.

Corresponding Secretary: A. J. STEELE, M. D., St. Louis.

Treasurer: A. H. CONKWRIGHT, M. D., Sedalia.

1877.—KANSAS CITY.

President: F. M. JOHNSON, M. D., Platte City.

Vice-Presidents:

D. R. PORTER, M. D., Kansas City. N. F. ESSIG, M. D., Plattsburg.
W. C. GLASGOW, M. D., St. Louis. E. C. EVANS, M. D., Sedalia.
P. S. FULKERSON, M. D., Lexington.

Recording Secretaries:

A. J. STEELE, M. D., St. Louis. E. W. SCHAUFFLER, M. D., Kan. City.

Corresponding Secretary: C. L. HALL, M. D., Marshall.

Treasurer: JACOB GEIGER, M. D., St. Joseph.

1878.—SWEET SPRINGS.

President: E. W. SCHAUFFLER, M. D., Kan. City.

Vice-Presidents:

G. M. B. MAUGHS, M. D., St. Louis. W. P. KING, M. D., Sedalia.
W. HUMPHREY, M. D., Mexico. J. M. PELOT, M. D., Brownsville.
JACOB GEIGER, M. D., St. Joseph.

Recording Secretaries:

A. J. STEELE, M. D., St. Louis. G. A. MOSES, M. D., St. Louis.

Corresponding Secretary: J. R. HALL, M. D., Marshall.

Treasurer: A. B. SLOAN, M. D., Kansas City.

1879.—COLUMBIA.

President: G. M. B. MAUGHS, M. D., St. Louis.

Vice-Presidents:

C. LESTER HALL, M. D., Marshall. C. N. GERARD, M. D., Shelbina.
A. W. MCALESTER, M. D., Columbia. W. H. BRYANT, M. D., Savannah.
C. THOMPSON, M. D., Jefferson City.

Recording Secretaries:

A. J. STEELE, M. D., St. Louis. W. E. FISCHEL, M. D., St. Louis.

Corresponding Secretary: E. C. EVANS, M. D., Sedalia.

Treasurer: A. B. SLOAN, M. D., Kansas City.

Digitized by Google

1880.—CARTHAGE.

President: J. M. ALLEN, M. D., Liberty.

Vice-Presidents:

T. U. FLANNER, M. D., Springfield. T. B. LLOYD, M. D., Paris.
L. I. MATTHEWS, M. D., Carthage. A. B. SLOAN, M. D., Kansas City.
J. M. SMITH, M. D., Richmond.

Recording Secretaries:

A. J. STEELE, M. D., St. Louis. F. J. LUTZ, M. D., St. Louis.

Corresponding Secretary: H. H. MUDD, M. D., St. Louis.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1881.—MEXICO.

President: WILLIS P. KING, Sedalia.

Vice-Presidents:

B. J. MILAM, M. D., Macon City. A. E. GORE, M. D., Paris.
GARLAND HURT, M. D., St. Louis. E. A. WAGGONER, Carrollton.
B. F. WILSON, M. D., Salisbury.

Recording Secretaries:

C. A. TODD, M. D., St. Louis. J. H. DUNCAN, M. D., Columbia.

Corresponding Secretary: WM. DICKINSON, M. D., St. Louis.

Treasurer: C. A THOMPSON, M. D., Jefferson City.

1882.—HANNIBAL.

President: A. E. GORE, M. D., Paris.

Vice-Presidents:

PINCKNEY FRENCH, M. D., Mexico. R. F. BROOKS, M. D., Carthage.
P. S. FULKERSON, M. D., Lexington. O. D. FITZGERALD, M. D., Lathrop.
F. J. LUTZ, M. D., St. Louis.

Recording Secretaries:

C. A. TODD, M. D., St. Louis. J. H. DUNCAN, M. D., Columbia.

Corresponding Secretary: WM. DICKINSON, M. D., St. Louis.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1883.—JEFFERSON CITY.

President: E. H. GREGORY, M. D., St. Louis.

Vice-Presidents:

O. A. WILLIAMS, M. D., Datzen. JNO. H. DUNCAN, M. D., Columbia.
J. D. GRIFFITH, M. D., Kansas City. T. J. NORRIS, M. D., Macon.
C. H. HUGHES, M. D., St. Louis.

Recording Secretaries:

A. H. OHMANN-DUMESNIL, M. D., St. Louis. D. V. WALE, M D., Jasper.

Corresponding Secretary: N. F. ESSIG, M. D., Plattsburg.

Treasure . C. A. THOMPSON, M. D.. Jefferson City.

Digitized by Google

1884.—SEDALIA.

President: H. H. MIDDELKAMP, M. D., Warrenton.

Vice-Presidents:

T. F. PREWITT, M. D., St. Louis. W. E. EVANS, M. D., Boonville.
B. G. DYSART, M. D., Paris. H. M. LANE, M. D., Jasper County.
S. C. GRISWOLD, M. D., New Haven.

Recording Secretaries:

J. H. THOMPSON, M. D., Kansas City; N. M. BASKET, M. D., Moberly.

Corresponding Secretary: F. J. LUTZ, M. D., St. Louis.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

1885.—ST. JOSEPH.

President: G. C. CATLETT, M. D., St. Joseph.

Vice-Presidents:

C. A. TODD, M. D., St. Louis. J. W. BRENT, M. D., Tipton.
J. W. JACKSON, M. D., Kansas City. D. H. SHIELDS, M. D., Hannibal.
G. M. DEWEY, M. D., Keytesville.

Recording Secretaries:

J. H. THOMPSON, M. D., Kansas City. J. C. MULHALL, M. D., St. Louis.

Corresponding Secretary: R. F. BROOKS, M. D., Carthage.

Treasurer: C. A. THOMPSON, M. D., Jefferson City.

Digitized by Google

Digitized by Google

1001

Digitized by Google